

**Kyrene Generating Station  
Salt River Project  
Significant Permit Revision S00-016**

**Table of Contents**

February 21, 2001

**GENERAL PERMIT CONDITIONS:**

<b>1.</b>	<b>AIR POLLUTION PROHIBITED .....</b>	<b>1</b>
<b>2.</b>	<b>CIRCUMVENTION .....</b>	<b>1</b>
<b>3.</b>	<b>CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS .....</b>	<b>1</b>
<b>4.</b>	<b>COMPLIANCE .....</b>	<b>2</b>
	COMPLIANCE REQUIRED	
	COMPLIANCE CERTIFICATION REQUIREMENTS	
	COMPLIANCE PLAN	
<b>5.</b>	<b>CONFIDENTIALITY CLAIMS .....</b>	<b>3</b>
<b>6.</b>	<b>CONTINGENT REQUIREMENTS.....</b>	<b>3</b>
	ACID RAIN	
	ASBESTOS	
	RISK MANAGEMENT PLAN (RMP)	
	STRATOSPHERIC OZONE PROTECTION	
<b>7.</b>	<b>DUTY TO SUPPLEMENT OR CORRECT APPLICATION .....</b>	<b>5</b>
<b>8.</b>	<b>EMERGENCY EPISODES.....</b>	<b>5</b>
<b>9.</b>	<b>EMERGENCY PROVISIONS .....</b>	<b>5</b>
<b>10.</b>	<b>EXCESS EMISSIONS.....</b>	<b>6</b>
<b>11.</b>	<b>FEES .....</b>	<b>6</b>
<b>12.</b>	<b>MODELING .....</b>	<b>7</b>
<b>13.</b>	<b>MONITORING/TESTING .....</b>	<b>7</b>
<b>14.</b>	<b>PERMITS .....</b>	<b>7</b>
	BASIC	
	DUST CONTROL PLAN REQUIREMENTS	
	PERMITS AND PERMIT CHANGES, AMENDMENTS AND REVISIONS	
	POSTING	
	PROHIBITION ON PERMIT MODIFICATION	

	RENEWAL	
	REVISION / REOPENING / REVOCATION	
	REVISION PURSUANT TO A FEDERAL HAZARDOUS AIR POLLUTION STANDARD	
	REQUIREMENTS FOR A PERMIT	
	RIGHTS AND PRIVILEGES	
	SEVERABILITY	
	SCOPE	
	TERM OF PERMIT	
	TRANSFER	
<b>15.</b>	<b>RECORDKEEPING.....</b>	<b>13</b>
	RECORDS REQUIRED	
	RETENTION OF RECORDS	
	MONITORING RECORDS	
	RIGHT OF INSPECTION OF RECORDS	
<b>16.</b>	<b>REPORTING.....</b>	<b>14</b>
	ANNUAL EMISSION INVENTORY QUESTIONNAIRE	
	DATA REPORTING	
	DEVIATION REPORTING	
	EMERGENCY REPORTING	
	EMISSION STATEMENTS REQUIRED	
	EXCESS EMISSIONS REPORTING	
	OTHER REPORTING	
<b>17.</b>	<b>RIGHT TO ENTRY AND INSPECTION OF PREMISES.....</b>	<b>16</b>

## **SPECIFIC PERMIT CONDITIONS**

<b>18.</b>	<b>ALLOWABLE EMISSION LIMITS.....</b>	<b>18</b>
<b>19.</b>	<b>OPERATIONAL LIMITATIONS AND REQUIREMENTS .....</b>	<b>29</b>
<b>20</b>	<b>MONITORING AND RECORDKEEPING REQUIREMENTS .....</b>	<b>32</b>
<b>21.</b>	<b>REPORTING REQUIREMENTS.....</b>	<b>36</b>
<b>22.</b>	<b>TESTING REQUIREMENTS.....</b>	<b>39</b>
<b>23.</b>	<b>OTHER REQUIREMENTS.....</b>	<b>41</b>
	PERMIT SHIELD	
	COMMENCEMENT OF CONSTRUCTION	
	OFFSET PLAN	
	ACID RAIN PERMIT	
<b>24.</b>	<b>PERMIT CONDITIONS FOR SURFACE COATING OPERATIONS .....</b>	<b>42</b>
<b>25.</b>	<b>PERMIT CONDITIONS FOR THE SOLVENT CLEANERS .....</b>	<b>45</b>

26.	PERMIT CONDITIONS FOR ARCHITECTURAL COATINGS.....	46
27.	PERMIT CONDITIONS FOR NON-RESALE GASOLINE STORAGE TANKS WITH CAPACITY GREATER THAN 250 GALLONS AND GASOLINE THROUGHPUT LESS THAN 120,000 GALLONS PER YEAR .....	48
28.	PERMIT CONDITIONS FOR DUST GENERATING OPERATIONS .....	49
29.	PERMIT CONDITIONS FOR ABRASIVE BLASTING WITH OR WITHOUT BAGHOUSE.....	60
30.	PERMIT CONDITIONS FOR WIPE CLEANING .....	61
31.	PERMIT CONDITIONS FOR CUTBACK AND EMULSIFIED ASPHALT .....	62
32.	PERMIT CONDITIONS FOR VOLATILE ORGANIC COMPOUNDS .....	63

## **APPENDICES:**

APPENDIX A: MAJOR EQUIPMENT LIST .....	65
APPENDIX B: PERMIT SHIELD APPLICABLE REQUIREMENTS .....	69
County Requirements.....	70
State Requirements .....	74
Federal Requirements.....	75
Federal Requirements -- State Implementation Plan .....	78
APPENDIX C: PERMIT SHIELD NON-APPLICABLE REQUIREMENTS .....	80

**KYRENE GENERATING STATION  
SALT RIVER PROJECT  
Permit Number S00-016**

**December 11, 2000**

**In accordance with Maricopa County Air Pollution Control Rules and Regulations (Rules), Rule 210 § 302.2, all Conditions of this Permit are federally enforceable unless they are identified as being locally enforceable only. However, any Permit Condition identified as locally enforceable only will become federally enforceable if, during the term of this Permit, the underlying requirement becomes a requirement of the Clean Air Act (CAA) or any of the CAA's applicable requirements.**

**All federally enforceable terms and conditions of this Permit are enforceable by the Administrator of the United States Environmental Protection Agency (Administrator or Administrator of the USEPA hereafter) and citizens under the CAA.**

**Any cited regulatory paragraphs or section numbers refer to the version of the regulation that was in effect on the first date of public notice of the applicable Permit Condition unless specified otherwise.**

**GENERAL CONDITIONS:**

- 1. AIR POLLUTION PROHIBITED:** [County Rule 100 §301] [SIP Rule 3]  
The Permittee shall not discharge from any source whatever into the atmosphere regulated air pollutants which exceed in quantity or concentration that specified and allowed in the County or SIP Rules, the Arizona Administrative Code (AAC) or the Arizona Revised Statutes (ARS), or which cause damage to property or unreasonably interfere with the comfortable enjoyment of life or property of a substantial part of a community, or obscure visibility, or which in any way degrade the quality of the ambient air below the standards established by the Maricopa County Board of Supervisors or the Director of the Arizona Department of Environmental Quality (ADEQ).
- 2. CIRCUMVENTION:** [County Rule 100 §104] [40 CFR 60.12] [40 CFR 63.4(b)]  
The Permittee shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of regulated air pollutants to the atmosphere, conceals or dilutes an emission which would otherwise constitute a violation of this Permit or any Rule or any emission limitation or standard. The Permittee shall not circumvent the requirements concerning dilution of regulated air pollutants by using more emission openings than is considered normal practice by the industry or activity in question.
- 3. CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS:**  
[County Rule 100 §401] [County Rule 210 §§301.7, 302.1e(1), 305.1c(1) & 305.1e]  
Any application form, report, or compliance certification submitted under the County Rules or these Permit Conditions shall contain certification by a responsible official of truth, accuracy, and completeness of the application form or report as of the time of submittal. This

certification and any other certification required under the County Rules or these Permit Conditions shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

**4. COMPLIANCE:**

**A. COMPLIANCE REQUIRED:**

- 1) The Permittee must comply with all conditions of this permit and with all applicable requirements of Arizona air quality statutes and the air quality rules. Compliance with permit terms and conditions does not relieve, modify, or otherwise affect the Permittee's duty to comply with all applicable requirements of Arizona air quality statutes and the Maricopa County Air Pollution Control Regulations. Any permit non-compliance is grounds for enforcement action; for a permit revocation and reissuance, or revision; or for denial of a permit renewal application. Noncompliance with any federally enforceable requirement in this Permit constitutes a violation of the Act. [This Condition is federally enforceable if the condition or requirement itself is federally enforceable and only locally enforceable if the condition or requirement itself is locally enforceable only.]  
[County Rule 210 §§301.8 b4 & 302.1h(1)]
- 2) The Permittee shall halt or reduce the permitted activity in order to maintain compliance with applicable requirements of Federal laws, Arizona laws, the County Rules, or other conditions of this Permit.  
[County Rule 210 §302.1h(2)]
- 3) For any major source operating in a nonattainment area for any pollutant(s) for which the source is classified as a major source, the source shall comply with reasonably available control technology (RACT) as defined in County Rule 100.  
[County Rule 210 §302.1(h)(6)] [SIP Rule 220 §302.1]

Compliance with the RACT requirements of this Permit Condition for NO<sub>x</sub> shall not be required if a waiver granted by the Administrator under Section 182 (f) of the Clean Air Act is in effect.

**B. COMPLIANCE CERTIFICATION REQUIREMENTS:**

[County Rule 210 §305.1d]

The Permittee shall file a semiannual compliance certification with the Control Officer and also with the Administrator of the USEPA. The report shall certify compliance with the terms and conditions contained in this Permit, including emission limitations, standards, or work practices. The certification shall be on a form supplied or approved by the Control Officer and shall include each of the following:

- 1) The identification of each term or condition of the permit that is the basis of the certification;
- 2) The compliance status;
- 3) Whether compliance was continuous or intermittent;
- 4) The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
- 5) Other facts as the Control Officer may require to determine the compliance status of the source.

The semiannual certification shall be filed at the same time as the semiannual monitoring report required by the Specific Condition section of these Permit Conditions.

C. COMPLIANCE PLAN: [County Rule 210 §305.1g]

Based on the certified information contained in the application for this Permit, the facility is in compliance with all applicable requirements in effect as of the release date of the proposed conditions for this Permit. The Permittee shall continue to comply with all applicable requirements and shall meet any applicable requirements that may become effective during the term of this permit on a timely basis. [This Condition is federally enforceable if the applicable requirement itself is federally enforceable and only locally enforceable if the applicable requirement itself is locally enforceable only.]

5. CONFIDENTIALITY CLAIMS: [County Rules 100 §402 and 200 §411]

Any records, reports or information obtained from the Permittee under the County Rules or this Permit shall be available to the public, unless the Permittee files a claim of confidentiality in accordance with ARS §49-487(c) which:

- A. Precisely identifies the information in the permit(s), records, or reports which is considered confidential, and
- B. Provides sufficient supporting information to allow the Control Officer to evaluate whether such information satisfies the requirements related to trade secrets or, if applicable, how the information, if disclosed, could cause substantial harm to the person's competitive position.

The claim of confidentiality is subject to the determination by the Control Officer as to whether the claim satisfies the claim for trade secrets.

A claim of confidentiality shall not excuse the Permittee from providing any and all information required or requested by the Control Officer and shall not be a defense for failure to provide such information.

If the Permittee submits information with an application under a claim of confidentiality pursuant to ARS 49-487 and County Rule 200, the Permittee shall submit a copy of such information directly to the Administrator of the USEPA.

[County Rule 210 §301.5]

6. CONTINGENT REQUIREMENTS:

*NOTE: This Permit Condition covers activities and processes addressed by the CAA which may or may not be present at the facility. This condition is intended to meet the requirements of both Section 504(a) of the 1990 Amendments to the CAA, which requires that Title V permits contain conditions necessary to assure compliance with applicable requirements of the Act as well as the Acid Rain provisions required to be in all Title V permits.*

A. ACID RAIN: [County Rule 210 §§302.1b(2) & 302.1f] [County Rule 371 §301]

- 1) Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated pursuant to Title IV of the CAA and incorporated pursuant to County Rule 371, both provisions shall be incorporated into this Permit and shall be enforceable by the Administrator.

- 2) The Permittee shall not allow emissions exceeding any allowances that the source lawfully holds pursuant to Title IV of the CAA or the regulations promulgated thereunder and incorporated pursuant to County Rule 371.
  - a) No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program and incorporated pursuant to County Rule 371, provided that such increases do not require a permit revision pursuant to any other applicable requirement.
  - b) No limit is placed on the number of allowances held by the Permittee. The Permittee may not, however, use allowances as a defense to non-compliance with any other applicable requirement.
  - c) Any such allowance shall be accounted for according to the procedures established in regulations promulgated pursuant to Title IV of the CAA.
  - d) All of the following prohibitions apply to any unit subject to the provisions of Title IV of the CAA and incorporated into this Permit pursuant to County Rule 371:
    - (1) Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners or operators of the unit or the designated representative of the owners or operators.
    - (2) Exceedances of applicable emission rates.
    - (3) The use of any allowance prior to the year for which it was allocated.
    - (4) Violation of any other provision of the permit.

B. ASBESTOS:

[40 CFR 61, Subpart M] [County Rule 370 §301.8 - locally enforceable only]

The Permittee shall comply with the applicable requirements of Sections 61.145 through 61.147 and 61.150 of the National Emission Standard for Asbestos and County Rule 370 for all demolition and renovation projects.

C. RISK MANAGEMENT PLAN (RMP):

[40 CFR 68]

Should this stationary source, as defined in 40 CFR 68.3, be subject to the accidental release prevention regulations in Part 68, then the Permittee shall submit an RMP by the date specified in Section 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 CFR Part 70. However, neither the RMP nor modifications to the RMP shall be considered to be a part of this Permit.

D. STRATOSPHERIC OZONE PROTECTION:

[40 CFR 82 Subparts E, F, and G]

If applicable, the Permittee shall follow the requirements of 40CFR 82.106 through 82.124 with respect to the labeling of products using ozone depleting substances.

If applicable, the Permittee shall comply with all of the following requirements with respect to recycling and emissions reductions:

- 1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- 2) Equipment used during maintenance, service, repair, or disposal of appliances must meet the standards for recycling and recovery equipment in accordance with 40 CFR 82.158.
- 3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by a certified technician pursuant to 40 CFR 82.161.

If applicable, the Permittee shall follow the requirements of 40CFR Subpart G, including all Appendices, with respect to the safe alternatives policy on the acceptability of substitutes for ozone-depleting compounds.

**7. DUTY TO SUPPLEMENT OR CORRECT APPLICATION:** [County Rule 210 §301.6]

If the Permittee fails to submit any relevant facts or has submitted incorrect information in a permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, the Permittee shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a proposed permit.

**8. EMERGENCY EPISODES:** [County Rule 600 §302] [SIP Rule 72 e, f & g]

If an air pollution alert, warning, or emergency has been declared, the Permittee shall comply with any applicable requirements of County Rule 600 §302.

**9. EMERGENCY PROVISIONS:** [County Rule 130 §§201 and 402]

An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the requirements of this Permit Condition are met.

The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- A. An emergency occurred and that the Permittee can identify the cause or causes of the emergency;
- B. At the time of the emergency, the permitted source was being properly operated;
- C. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in this permit; and
- D. The Permittee as soon as possible telephoned the Control Officer giving notice of the emergency and submitted notice of the emergency to the Control Officer by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice fulfills the requirement of County Rule 210. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

This provision is in addition to any emergency or upset provision contained in any applicable requirement.



**10. EXCESS EMISSIONS:** [County Rule 140 §§401 and 402 - locally enforceable only]

*NOTE: This Permit Condition is based on a County Rule which has not been adopted into the State Implementation Plan and is therefore applicable only at the County level.*

*There are reporting requirements associated with excess emissions. These requirements are contained in the Reporting section of the General Permit Conditions in a subparagraph called Excess Emissions. The definition of excess emissions can be found in County Rule 100 §200.*

A. Emissions in excess of an applicable emission limitation contained in the Rules or in these Permit Conditions shall constitute a violation. For all situations that constitute an emergency as described in County Rule 130 §201, the requirements contained in County Rule 130 shall apply. In all other circumstances, it shall be an affirmative defense if the Permittee has complied with the reporting requirements of County Rule 140 §500 and these Permit Conditions in a timely manner and has demonstrated all of the following:

- 1) The excess emissions resulted from a sudden and unavoidable breakdown of the process equipment or the air pollution control equipment, resulted from unavoidable conditions during startup or shutdown, resulted from unavoidable conditions during an upset of operations, or greater or more extended excess emissions would result unless scheduled maintenance is performed;
- 2) The source's air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
- 3) Where repairs were required, such repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded and off-shift labor and overtime were utilized where practical to insure that such repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that such measures were impractical;
- 4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
- 5) All reasonable steps were taken to minimize the impact of the excess emissions on potential violations of ambient air quality standards;
- 6) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and
- 7) During the period of excess emissions, there were no measured violations of the ambient air quality standards established in County Rule 510 which could be attributed to the emitting source.

B. It shall be the burden of the Permittee to demonstrate, through submission of the data and information required by this Permit Condition that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of excess emissions.

**11. FEES:** [County Rules 200 §409; 210 §302.1i; 210 §401]

The Permittee shall pay fees to the Control Officer pursuant to ARS 49-480(D) and County Rule 280.

**12. MODELING:** [locally enforceable only] [County Rule 200 §407]

Where the Control Officer requires the Permittee to perform air quality impact modeling, the Permittee shall perform the modeling in a manner consistent with the "Guideline on Air Quality Models (Revised)" (EPA-450/2-78-027R, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, July 1986) and "Supplement B to the Guideline on Air Quality Models" (U.S. Environmental Protection Agency, September 1990). Both documents shall be referred to hereinafter as "Guideline", and are adopted by reference. Where the person can demonstrate that an air quality impact model specified in the guideline is inappropriate, the model may be modified or another model substituted if found to be acceptable to the Control Officer.

**13. MONITORING / TESTING:**

- A. The Permittee shall monitor, sample, or perform other studies to quantify emissions of regulated air pollutants or levels of air pollution that may reasonably be attributable to the facility if required to do so by the Control Officer, either by Permit or by order in accordance with County Rule 200 §309.

[County Rule 200 §309] [SIP Rule 41]

- B. Except as otherwise specified in these Permit Conditions or by the Control Officer, the Permittee shall conduct required testing used to determine compliance with standards or permit conditions established pursuant to the County or SIP Rules or these Permit Conditions in accordance with County Rule 270 and the applicable testing procedures contained in the Arizona Testing Manual for Air Pollutant Emissions or other approved USEPA test methods.

[County Rule 200 §408] [County Rule 270 §§300 and 400] [SIP Rule 27]

- C. The Permittee may use equivalent test methods and procedures in lieu of those described in this paragraph if approved by the Control Officer.

[County Rule 270 §402]

- D. The owner or operator of a permitted source shall provide, or cause to be provided, performance testing facilities as follows:

- 1) Sampling ports adequate for test methods applicable to such source.
- 2) Safe sampling platform(s).
- 3) Safe access to sampling platforms(s).
- 4) Utilities for sampling and testing equipment.

[County Rule 270 §405] [SIP Rule 42]

**14. PERMITS:**

- A. BASIC: [County Rule 210 §302.1 h (3)]

This Permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any Permit Condition.

- B. DUST CONTROL PLAN REQUIREMENTS:

- 1) The following describe the permit applications with which a Dust Control Plan must be submitted. *(NOTE: If the Permittee engages in or allows any routine dust generating activities at the facility, the Permittee shall apply to have the*

*routine dust generating activity covered as part of this Permit. Nonroutine activities, such as construction and revegetation, require a separate Earthmoving Permit that must be obtained from the Control Officer before the activity may begin.)*

- a) If the Permittee is required to obtain an Earthmoving Permit under Regulation II (Permits And Fees) of the County Rules, then the Permittee must first submit a Dust Control Plan and obtain the Control Officer's approval of the Dust Control Plan before commencing any dust generating operation.
- b) The Permittee must first submit a Dust Control Plan and obtain the Control Officer's approval of the Dust Control Plan before commencing any routine dust generating operation.

[County Rule 310 §303.3]

- 2) A Dust Control Plan shall not be required to play on a ballfield and/or for landscape maintenance. For the purpose of this Permit Condition, landscape maintenance does not include grading, trenching, nor any other mechanized surface disturbing activities.

[County Rule 200 §305] [County Rule 310 §303.4] [SIP Rule 310 §303.4]

- 3) Any Dust Control Plan shall, at a minimum, contain all the information described in Section 304 of Rule 310.

[County Rule 310 §304] [SIP Rule 310 §304]

- 4) Compliance with this section does not effect a source's responsibility to comply with the other standards of Rule 310 and these Permit Conditions. Failure to comply with the provisions of an approved Dust Control Plan or the work practice standards contained in Rule 310 §308 is deemed to be a violation of this Permit. Regardless of whether an approved Dust Control Plan is in place or not, the Permittee is still subject to all requirements of Rule 310 at all times. In addition, if the Permittee has an approved Dust Control Plan, the Permittee is still subject to all of the requirements of Rule 310, even if the Permittee is complying with the approved Dust Control Plan.

[County Rule 310 §303] [SIP Rule 310 §303]

- 5) The Permittee shall make revisions to any required Dust Control Plan when notified in writing by the Control Officer that implementation of the existing dust control plan allowed an exceedance of the standards established in Rule 310 §§301 or 302. The revised Dust Control Plan shall be submitted to the Control Officer within 3 working days of receiving the notice. During the time when the Dust Control Plan is being revised, the Permittee must still comply with the requirements of this Permit and Rule 310.

[County Rule 310 §305] [SIP Rule 310 §305]

C. PERMITS AND PERMIT CHANGES, AMENDMENTS AND REVISIONS:

[County Rule 200 §§301 & 308] [County Rule 210 §§301.4a, b, & c, and 400]

- 1) The Permittee shall comply with the Administrative Requirements of Section 400 of County Rule 210 for all changes, amendments and revisions at the facility for any source subject to regulation under County Rule 200, shall comply with all

required time frames, and shall obtain any required preapproval from the Control Officer before making changes. All applications shall be filed in the manner and form prescribed by the Control Officer. The application shall contain all the information necessary to enable the Control Officer to make the determination to grant or to deny a permit or permit revision including information listed in County Rule 200 §308 and County Rule 210 §§301 & 302.3.

- 2) The Permittee shall supply a complete copy of each application for a permit, a minor permit revision, or a significant permit revision directly to the Administrator of the USEPA. The Control Officer may require the application information to be submitted in a computer-readable format compatible with the Administrator's national database management system.  
[County Rule 210 §§303.1(a), 303.2, 405.4, & 406.4]
- 3) While processing an application, the Control Officer may require the applicant to provide additional information and may set a reasonable deadline for a response.  
[County Rule 210 §301.4f]
- 4) No permit revision shall be required pursuant to any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.  
[County Rule 210 §302.1j]

D. POSTING:

- 1) The Permittee shall keep a complete permit clearly visible and accessible on the site where the equipment is installed.  
[County Rule 200 §311] [SIP Rule 22F]
- 2) If a Dust Control Plan, as required by County Rule 310, has been approved by the Control Officer, the Permittee shall post a copy of the approved Dust Control Plan in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or shall otherwise keep a copy of the Dust Control Plan available on site at all times.  
[County Rule 310 §401] [SIP Rule 310 §401]

E. PROHIBITION ON PERMIT MODIFICATION: [County Rule 200 §310]  
The Permittee shall not willfully deface, alter, forge, counterfeit, or falsify this permit.

F. RENEWAL: [County Rule 210 §§ 301 & 302]

- 1) The Permittee shall submit an application for the renewal of this Permit in a timely and complete manner. For purposes of permit renewal, a timely application is one that is submitted at least six months, but not more than 18 months, prior to the date of permit expiration. A complete application shall contain all of the information required by the County Rules including Rule 200 §308 and Rule 210 §§301 & 302.3.  
[County Rules 210 §§301.2(a), 301.4(a), (b), (c), (d), (h) and 302.3]
- 2) The Permittee shall file all permit applications in the manner and form prescribed by the Control Officer. To apply for a permit renewal, the Permittee shall

complete the "Standard Permit Application Form" and shall supply all information, including the information required by the "Filing Instructions" as shown in Appendix B of the County Rules, which is necessary to enable the Control Officer to make the determination to grant or to deny a permit which shall contain such terms and conditions as the Control Officer deems necessary to assure a source's compliance with the requirements of the CAA, Arizona statutes and County Rules.

[County Rules 200 §§308 & 309] [County Rule 210 §301.1]

- 3) The Control Officer may require the Permittee to provide additional information and may set a reasonable deadline for a response.  
[County Rule 210 §301.4(f)]
- 4) If the Permittee submits a timely and complete application for a permit renewal, but the Control Officer has failed to issue or deny the renewal permit before the end of the term of the previous permit, then the permit shall not expire until the renewal permit has been issued or denied. This protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit, by the deadline specified by the Control Officer, any additional information identified as being needed to process the application.  
[County Rule 200 §403.2] [County Rule 210 §§301.4f and 301.9]

G. REVISION / REOPENING / REVOCATION:

- 1) This permit shall be reopened and revised to incorporate additional applicable requirements adopted by the Administrator pursuant to the CAA that become applicable to the facility if this permit has a remaining permit term of three or more years. No such reopening is required if the effective date of the requirement is later than the date on which this Permit is due to expire unless the original permit or any of its terms have been extended pursuant to Rule 200 §403.2.  
[County Rules 200 §402.1]

Any permit revision required pursuant to this Permit Condition, 14.G.1, shall reopen the entire permit and shall comply with provisions in County Rule 200 for permit renewal (*Note: this includes a facility wide application and public comment on the entire permit*) and shall reset the five year permit term.

[County Rules 200 §402.1a(1) & 210 §302.5]

- 2) This permit shall be reopened and revised under any of the following circumstances:
  - a) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Title V permit.
  - b) The Control Officer or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
  - c) The Control Officer or the Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

Proceedings to reopen and issue a permit under this Permit Condition, 14.G.2, shall follow the same procedures as apply to initial permit issuance and shall effect only those parts of the Permit for which cause to reopen exists.

[County Rule 200 §402.1]

- 3) This permit shall be reopened by the Control Officer and any permit shield revised, when it is determined that standards or conditions in the permit are based on incorrect information provided by the applicant.

[County Rule 210 §407.3]

- 4) This Permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Permit revision, revocation and reissuance, or termination or of a notification of planned changes or anticipated noncompliance does not stay any Permit Condition.

[County Rule 210 §302.1h(3)]

I. REQUIREMENTS FOR A PERMIT:

- 1) Air Quality Permit: Except as noted pursuant to the provisions in Sections 403 and 405 of County Rule 210, no source may operate after the time that it is required to submit a timely and complete application, except in compliance with a permit issued pursuant to County Rule 210. Permit expiration terminates the Permittee's right to operate. However, if a source submits a timely and complete application, as defined in County Rule 210 §301, for permit issuance, revision, or renewal, the source's failure to have a permit is not a violation of the County Rules until the Control Officer takes final action on the application. The Source's ability to operate without a permit as set forth in this paragraph shall be in effect from the date the application is determined to be complete until the final permit is issued. This protection shall cease to apply if, subsequent to the completeness determination, the applicant fails to submit, by the deadline specified in writing by the Control Officer, any additional information identified as being needed to process the application. If a source submits a timely and complete application for a permit renewal, but the Control Officer has failed to issue or deny the renewal permit before the end of the term of the previous permit, then the permit shall not expire until the permit renewal has been issued or denied.

[County Rule 210 §301.9]

- 2) Earthmoving Permit:

*(NOTE: If the Permittee engages in or allows any routine dust generating activities at the facility, the Permittee shall apply to have the routine dust generating activity covered as part of this Permit. Nonroutine activities, such as construction and revegetation, require a separate Earthmoving Permit that must be obtained from the Control Officer before the activity may begin.)*

No person shall commence any earth moving operation or any dust generating operation without meeting the requirements of and obtaining any and all Earth Moving Equipment Permits and Permits to Operate required by County Rule 200. The provisions of this section shall not apply:

- a) During emergency, life threatening situations or in conjunction with any officially declared disaster or state of emergency;
- b) To operations conducted by essential service utilities to provide electricity, natural gas, oil and gas transmission, cable television,

telephone, water, and sewerage during service outages and emergency disruptions;

- c) To non-routine or emergency maintenance of flood control channels and water retention basins.
- d) To vehicle test and development facilities and operations when dust is required to test and validate design integrity, product quality and/or commercial acceptance. Such facilities and operations shall be exempted from the provisions of this section only if such testing is not feasible within enclosed facilities.

[County Rule 310 §302] [SIP Rule 310 §302]

The Permittee shall not cause, commence, suffer, allow, or engage in any earthmoving operation that disturbs a total surface area of 0.10 acre or more without first obtaining a permit from the Control Officer. Permits shall not be required for earthmoving operations for emergency repair of utilities, paved roads, unpaved roads, shoulders, and/or alleys.

[County Rule 200 §305]

- 3) Burn Permit: The Permittee shall obtain a Permit To Burn from the Control Officer before conducting any open outdoor fire except for the activities listed in County Rule 314 §§302.1 and 302.2.

[County Rules 314 & 200 §306] [SIP Rule 314]

- J. RIGHTS AND PRIVILEGES: [County Rule 210 §302.1 h (4)]  
This Permit does not convey any property rights nor exclusive privilege of any sort.

- K. SEVERABILITY: [County Rule 210 §302.1g]  
The provisions of this Permit are severable, and, if any provision of this Permit is held invalid, the remainder of this Permit shall not be affected thereby.

- L. SCOPE:  
The issuance of any permit or permit revision shall not relieve the Permittee from compliance with any Federal laws, Arizona laws, or the County or SIP Rules, nor does any other law, regulation or permit relieve the Permittee from obtaining a permit or permit revision required under the County Rules.

[County Rule 200 §308] [SIP Rule 22H]

Nothing in this permit shall alter or affect the following:

- 1) The provisions of Section 303 of the Act, including the authority of the Administrator pursuant to that section.
- 2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance.
- 3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act.
- 4) The ability of the Administrator of the USEPA or of the Control Officer to obtain information from the Permittee pursuant to Section 114 of the Act, or any provision of State law.
- 5) The authority of the Control Officer to require compliance with new applicable requirements adopted after the permit is issued. [locally enforceable only]

[County Rule 210 §407.2]

- M. TERM OF PERMIT: [County Rule 210 §§302.1a & 402]  
This Permit shall remain in effect for no more than 5 years from the date of issuance.

- N. TRANSFER: [County Rule 200 §404]  
Except as provided in ARS 49-429 and County Rule 200, this permit may be transferred to another person if the Permittee gives notice to the Control Officer in writing at least 30 days before the proposed transfer and complies with the permit transfer requirements of County Rule 200 and the administrative permit amendment procedures pursuant to County Rule 210.

**15. RECORDKEEPING:**

- A. RECORDS REQUIRED: [County Rule 100 §501] [County Rule 310 §502] [SIP Rule 40 A]

The Permittee shall maintain records of all emissions testing and monitoring, records detailing all malfunctions which may cause any applicable emission limitation to be exceeded, records detailing the implementation of approved control plans and compliance schedules, records required as a condition of any permit, records of materials used or produced and any other records relating to the emission of air contaminants which may be requested by the Control Officer.

- B. RETENTION OF RECORDS:  
Unless a longer time frame is specified by the Rules or these Permit Conditions, the Permittee shall retain information and records required by either the Control Officer or these Permit Conditions as well as copies of summarizing reports recorded by the Permittee and submitted to the Control Officer for 5 years after the date on which the pertinent report is submitted.

[County Rule 100 §504] [SIP Rule 40 C]

The Permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or physical records for continuous monitoring instrumentation, and copies of all reports required by the permit.

[County Rule 210 §§302.1 d (2) and 305.1 b (2)]

- C. MONITORING RECORDS: [County Rule 210 §§302.1 d (2) and 305.1 b (1)]  
Records of any monitoring required by this Permit shall include the following:
- 1) The date, place as defined in the permit, and time of sampling or measurements;
  - 2) The date(s) analyses were performed;
  - 3) The company or entity that performed the analyses;
  - 4) The analytical techniques or methods used;
  - 5) The results of such analyses; and
  - 6) The operating conditions as existing at the time of sampling or measurement.
- D. RIGHT OF INSPECTION OF RECORDS: [County Rule 100 §106] [SIP Rule 40 D]  
When the Control Officer has reasonable cause to believe that the Permittee has violated or is in violation of any provision of County Rule 100 or any County Rule



adopted under County Rule 100, or any requirement of this permit, the Control Officer may request, in writing, that the Permittee produce all existing books, records, and other documents evidencing tests, inspections, or studies which may reasonably relate to compliance or noncompliance with County Rules adopted under County Rule 100. No person shall fail nor refuse to produce all existing documents required in such written request by the Control Officer.

**16. REPORTING:**

*NOTE: See the Permit Condition titled Certification Of Truth, Accuracy and Completeness in conjunction with reporting requirements.*

**A. ANNUAL EMISSION INVENTORY REPORT:**

[County Rule 100 §505][SIP Rule 40 B]

Upon request of the Control Officer and as directed by the Control Officer, the Permittee shall complete and shall submit to the Control Officer an annual emissions inventory report. The report is due by April 30 or 90 days after the Control Officer makes the inventory form(s) available, whichever occurs later.

The annual emissions inventory report shall be in the format provided by the Control Officer.

The Control Officer may require submittal of supplemental emissions inventory information forms for air contaminants under Arizona Revised Statutes (ARS) §49-476.01, ARS §49-480.03 and ARS §49-480.04.

**B. DATA REPORTING:**

[County Rule 100 §502]

When requested by the Control Officer, the Permittee shall furnish to the Maricopa County Air Quality Division (Division hereafter) information to locate and classify air contaminant sources according to type, level, duration, frequency and other characteristics of emissions and such other information as may be necessary. This information shall be sufficient to evaluate the effect on air quality and compliance with the County or SIP Rules. The Permittee may subsequently be required to submit annually, or at such intervals specified by the Control Officer, reports detailing any changes in the nature of the source since the previous report and the total annual quantities of materials used or air contaminants emitted.

**C. DEVIATION REPORTING:**

[County Rule 130 §402.4] [County Rule 210 §§302.1 e & 305.1 c]

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions. Unless specified otherwise elsewhere in these Permit Conditions, an upset for the purposes of this Permit Condition shall be defined as the operation of any process, equipment or air pollution control device outside of either its normal design criteria or operating conditions specified in this Permit and which results in an exceedance of any applicable emission limitation or standard. The Permittee shall submit the report to the Control Officer by certified mail, facsimile, or hand delivery within 2 working days of knowledge of the deviation; and the report shall contain a description of the probable cause of such deviations and any corrective actions or preventive measures taken. In addition, the Permittee shall report within a

reasonable time of any long-term corrective actions or preventative actions taken as the result of any deviations from permit requirements.

All instances of deviations from the requirements of this Permit shall also be clearly identified in the semiannual monitoring reports required in the Specific Condition section of these Permit Conditions.

D. EMERGENCY REPORTING:

[County Rule 130 §402.4]

*(NOTE: Emergency Reporting is one of the special requirements which must be met by a Permittee wishing to claim an affirmative defense under the emergency provisions of County Rule 130. These provisions are listed earlier in these General Conditions in the section titled "Emergency Provisions". Since it is a form of deviation reporting, the filing of an emergency report also satisfies the requirement of County Rule 210 to file a deviation report)*

The Permittee shall, as soon as possible, telephone the Control Officer giving notice of the emergency and submitted notice of the emergency to the Control Officer by certified mail, facsimile, or hand delivery within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

E. EMISSION STATEMENTS REQUIRED AS STATED IN THE ACT:

[County Rule 100 §503]

Upon request of the Control Officer and as directed by the Control Officer, the Permittee shall provide the Control Officer with an emission statement, in such form as the Control Officer prescribes, showing measured actual emissions or estimated actual emissions of NO<sub>x</sub> and VOC from that source. At a minimum the emission statement shall contain all information contained in the "Guidance on Emission Statements" document as described in the USEPA's Aerometric Information Retrieval System (AIRS) Fixed Format Report (AFP 644). The statement shall contain emissions for the time period specified by the Control Officer. Statements shall be submitted annually.

F. EXCESS EMISSIONS REPORTING:

[locally enforceable only] [County Rule 140 §§500]

*(NOTE: This reporting subsection is associated with the requirements listed earlier in these General Conditions in the section titled "Excess Emissions".)*

1) Excess emissions shall be reported as follows:

- a) The Permittee shall report to the Control Officer any emissions in excess of the limits established either by the Rules or these Permit Conditions. The report shall be in two parts as specified below:
  - (1) Notification by telephone or facsimile within 24 hours of the time when the owner or operator first learned of the occurrence of excess emissions including all available information from paragraph F. 1) b) below of this Permit Condition.
  - (2) Excess emissions report containing all the information described in paragraph F.1) b) below of this Permit Condition within 72 hours of the telephone notification pursuant to paragraph F. 1) a) (1) above of this Permit Condition.
- b) The excess emissions report shall contain the following information:

- (1) The identity of each stack or other emission point where the excess emissions occurred.
  - (2) The magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions.
  - (3) The time and duration or expected duration of the excess emissions.
  - (4) The identity of the equipment from which the excess emissions emanated.
  - (5) The nature and cause of such emissions.
  - (6) The steps taken if the excess emissions were the result of a malfunction to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunction.
  - (7) The steps that were or are being taken to limit the excess emissions. If this Permit contains procedures governing source operation during periods of startup or malfunction and the excess emissions resulted from startup or malfunction, the report shall contain a list of the steps taken to comply with the Permit procedures.
- 2) In the case of continuous or recurring excess emissions, the notification requirements of this section shall be satisfied if the Permittee provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period or changes in the nature of the emissions as originally reported shall require additional notification that meets the criteria of Section F. 1) of this Permit Condition.

- G. OTHER REPORTING: [County Rule 210 §302.1 h (5)]
- The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for revising, revoking and reissuing this permit, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by this Permit. For information claimed to be confidential, the Permittee shall furnish a copy of such records directly to the Administrator along with a claim of confidentiality as covered elsewhere in these Permit Conditions.

**17. RIGHT TO ENTRY AND INSPECTION OF PREMISES:**

[County Rules 100 §105 and 210 §305.1f] [SIP Rule 43]

The Control Officer during reasonable hours, for the purpose of enforcing and administering County Rules, or any provision of the Arizona Revised Statutes relating to the emission or control prescribed pursuant thereto, may enter every building, premises, or other place, except the interior of structures used as private residences. Every person is guilty of a petty offense under ARS §49-488 who in any way denies, obstructs or hampers such entrance or inspection that is lawfully authorized by warrant.

The Permittee shall allow the Control Officer or his authorized representative, upon presentation of proper credentials and other documents as may be required by law, to:

- A. Enter upon the Permittee's premises where a source is located or emissions-related activity is conducted, or where records are required to be kept pursuant to the conditions of the permit;

- B. Have access to and copy, at reasonable times, any records that are required to be kept pursuant to the conditions of the permit;
- C. Inspect, at reasonable times, any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required pursuant to this permit;
- D. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and
- E. To record any inspection by use of written, electronic, magnetic, and photographic media.  
[Locally enforceable only]

## SPECIFIC CONDITIONS:

### 18. ALLOWABLE EMISSION LIMITATIONS

The allowable emission limits of these Permit Conditions are based upon the facility as currently permitted. They do not provide for facility changes or changes in the method of operation that would otherwise trigger applicable requirements including New Source Review, Prevention of Significant Deterioration or Best Available Control Technology.

#### A. Facility - Wide Requirements:

##### 1) Facility Equipment

The existing major emitting equipment and the new major emitting equipment to be constructed at the facility are described in Appendix A. The Permittee shall not deviate from the equipment described in Appendix A.

[County Rule 240, §301]

##### 2) Facility Emission Limits After Unit K-7 is Operationally Available for Dispatch

The facility emission limits specified in this Permit Condition 18.A.2 shall apply upon Unit K-7 becoming operationally available for dispatch, but no later than 180 days after startup (as defined by 40 CFR 60.2) of Unit K-7, whichever occurs earlier.

In addition to emission limits expressed elsewhere in this Permit, the Permittee shall not cause, allow, or permit emissions to exceed the hourly and rolling average limits shown in Tables 1, 2, 3, 4, and 5. *[Refer to the Notes located after Table 4 at the end of this subsection and Appendix A for explanation of terms.]*

**Table 1**  
**Rolling 12-month Average Limits**

	<b>Rolling 12-month Average Emission Limits (tons per year)</b>				
<b>Device</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub></b>	<b>VOC</b>
Existing Units K-1, K-2, K-4, K-5, and K-6 combined	0.4	48.9	14.9	5.2	0.6
Combined Cycle System K-7	16.0	92.1	141.6	61.3	25.5
Unit K-7 Cooling Tower	NA	NA	NA	1.4	NA

[County Rule 240, §308.1(a), (d), (e)]

**Table 1a**  
**Rolling 24month Average Limits for Any 24 Month Period**

	<b>Rolling 24-month Average Emission Limits for Any 24 Month Period</b>				
<b>Device</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub></b>	<b>VOC</b>
Existing Units K-1, K-2, K-4, K-5, and K-6 combined	0.4	48.9	14.9	5.2	0.6

[Permittee's Voluntary Emissions Limit, Locally Enforceable Only]

**Table 2**  
**Rolling 3-hour Average Emission Limits During Periods**  
**When Combined Cycle System K-7**  
**Operates in Conditions Other than Startup or Shutdown**

	<b>Rolling 3-hour Average Emission Limits During Periods When Combined Cycle System K-7 Operates in Conditions Other than Startup or Shutdown (pounds per hour)</b>				
<b>Device</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub></b>	<b>VOC</b>
K-7 Gas Turbine, K-7 Duct Burner OFF	3.9	12.1	10.8	12.5	2.8
K-7 Gas Turbine, K-7 Duct Burner ON	4.6	18.3	17.3	14.0	3.9

[County Rule 240, §308.1(a), (d), (e)][40 CFR 60.43a(b), (g)][40 CFR 60.333(a)]

**Table 3**  
**Hourly Emission Limits for Combined Cycle System K-7**  
**During Periods of Startup or Shutdown**

	<b>Hourly Emission Limits for Combined Cycle System K-7 During Startup or Shutdown (pounds per hour)</b>		
<b>Device</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>
Gas Turbine K-7	162.0	760.2	93.3

Note: If no alternative emission limit for startup or shutdown is provided in this Table 3, the limits in the other Tables and permit conditions shall apply.

[County Rule 240, §308.1(a), (d), (e)]

**Table 4**  
**Additional Concentration or Rate Emission Limits**

<b>Device</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub></b>	<b>VOC</b>	<b>Other</b>
K-7 Duct Burner	0.20 lb/mmBtu 30-day rolling average, including startup and shutdown	NS	NS	NS	NS
Combined Cycle System K-7 Exhaust, Duct Burner ON or OFF	2.5 ppm 3-hour average	3.9 ppm 3-hour average	0.0072 lb/mmBtu	2.7 ppm 3-hour average	<b>Ammonia</b> 10 ppm 24-hour rolling average

[County Rule 240, §308.1(a), (d), (e)] [40 CFR 60.44b(l)(1)] [40 CFR 60.44b(h)]  
 [40 CFR 60.44b(i)] [40 CFR 60.332(a)(1)]

The following Notes apply to Tables 1, 2, 3, 4, and 5.

- a) NA (Not Applicable) means that the device does not emit the indicated pollutant.

- b) NS (Not Specified) means that no additional Concentration or Rate limit is specified for that pollutant and device in Table 4.
- c) Startup is defined as the period between when ignition is initiated in Combined Cycle System K-7 until the temperature of the Gas Turbine K-7 exhaust prior to entering the Oxidation Catalyst System reaches 560 degrees Fahrenheit and the electrical output of the Unit K-7 gas turbine increases to above 50% of rated capacity. Rated capacity means the nameplate capacity adjusted to the current ambient conditions.
- d) Shutdown is defined as the period beginning when the electrical load of Gas Turbine K-7 drops below 50% of the rated capacity and ending when combustion has ceased.
- e) The rolling 12- month limits shall be calculated monthly using the data from the most recent 12 calendar months, with a new 12-month period beginning on the first day of each calendar month. The rolling 24- month limits shall be calculated monthly using the data from the most recent 24 calendar months, with a new 24-month period beginning on the first day of each calendar month. The rolling 24-month emissions shall be calculated on a tons per year basis.
- f) The 30-day rolling average limits shall be calculated daily using the data from the most recent 30 calendar days, with a new 30-day period beginning on the first hour of each calendar day.
- g) The 24-hour rolling average limits shall be calculated hourly using the data from the most recent 24 hours, with a new 24-hour period beginning each hour.
- h) The 3-hour rolling average limits shall be calculated hourly using the data from the most recent 3 hours, with a new 3-hour period beginning each hour.
- i) NO<sub>x</sub> emissions for Combined Cycle System K-7 during normal operations shall be calculated in accordance with 40 CFR Part 75, Appendix F, except for demonstrating compliance with 40 CFR Part 60 Subparts Db and GG.  
[40 CFR 75 Appendix F]
- j) NO<sub>x</sub> emissions from Duct Burner K-7 shall be calculated as required by 40 CFR 60.48b(b)(2), which specifies that the methods in 40 CFR Part 75, Appendix F shall be used, except that the data used to meet the requirements of 40 CFR 60.49b shall not include data substituted using the missing data procedures in Subpart D of 40 CFR Part 75, nor shall the data have been bias adjusted according to the procedures of 40 CFR Part 75. *(Note: The 40 CFR 60.44b emission limit of 0.2 lb/mmBtu for the duct burner alone is more than twice as great as the emission limit in Table 2 for the combination of the gas turbine and the duct burner. Therefore, the Permittee can demonstrate compliance with 40 CFR 60.44b using a single CEM for the combined exhaust).*  
[40 CFR 60.48b(b)(2)]
- k) CO emissions from Combined Cycle System K-7 shall be calculated from the continuous emissions monitoring data.

- l) TNO<sub>x</sub> emissions from Gas Turbine K-7 shall be calculated as required by 40 CFR 60.335(c)(1) unless the Gas Turbine K-7 is installed with a Mark V or functionally equivalent controller programmed with an algorithm acceptable to the Administrator and Control Officer that continuously corrects for variations in ambient humidity, temperature, and pressure yielding a relatively constant NO<sub>x</sub> concentration when corrected to 15 percent oxygen, in which case the CEM data can be used without the 40 CFR 60.335(c)(1) correction. [40 CFR 60.335(c)(1)]
- m) In the event that the NO<sub>x</sub> or CO CEMs measuring startup/shutdown emissions from Combined Cycle System K-7 is not operational or cannot reliably document emissions, startup/shutdown emissions shall be calculated by monitoring the total elapsed time during the startup/shutdown sequence and multiplying by the appropriate startup/shutdown emission rates in Table 3. An alternative emission rate can be used if such rate is demonstrated to the satisfaction of the Control Officer and the Administrator to be more representative of startup/shutdown emissions.
- n) VOC and PM<sub>10</sub> emissions during normal operations and startup/shutdown periods from Combined Cycle System K-7 shall be calculated using monitored fuel flow and the emission factors contained in Table 4a unless an alternative emission rate can be demonstrated to the satisfaction of the Control Officer and the Administrator to be more representative of emissions.
- o) NO<sub>x</sub> emissions from Existing Units K-1 and K-2 shall be calculated using the continuous emissions monitoring data or fuel flow and the emission factors contained in Table 4a. CO, PM<sub>10</sub>, and VOC emissions from Existing Units K-1 and K-2 shall be calculated using fuel flow and the emission factors contained in Table 4a unless an alternative emission rate can be demonstrated to the satisfaction of the Control Officer to be more representative of emissions.
- p) NO<sub>x</sub>, CO, PM<sub>10</sub>, and VOC emissions from Existing Units K-4, K-5, and K-6 shall be calculated using fuel flow and the emission factors contained in Table 4a unless an alternative emission rate can be demonstrated to the satisfaction of the Control Officer to be more representative of emissions.

**Table 4a**  
**Natural Gas Fueled Emission Factors (lb/mmscf)**

Device	NO <sub>x</sub>	CO	PM <sub>10</sub>	VOC
Existing Units K-1 and K-2	190	84	7.6	5.5
Existing Units K-4, K-5, and K-6	336	86	44	2.2
New Unit K-7 (gas turbine)	7.5	6.7	7.2	1.7
New Unit K-7 (duct burner)	29.5	29	7.2	5.2



- q) PM<sub>10</sub> emissions from the Unit K-7 Cooling Tower shall be calculated from the following equation:

$$\text{PM}_{10} \text{ Emissions (tons/yr)} = \text{Total Recirculation Rate(gallons/minute)} * \text{TDS Concentration (milligrams/liter)} * 1.5482\text{E-}09;$$

Where the value 5.482E-09 is a conversion factor for cooling tower drift rate (0.0005%), milligrams to tons, liters to gallons, minutes to year, and 100% of one-half total particulate as PM<sub>10</sub>.

- r) SO<sub>2</sub> emissions from all units shall be calculated from fuel usage during normal operations and startup/shutdown and the sulfur content of the fuel as determined by Condition 20.G of this permit. For Existing Units K-1 and K-2, the Permittee may substitute SO<sub>2</sub> emissions calculated from certified SO<sub>2</sub> Continuous Emissions Monitors (CEMS).
- s) Unless otherwise stated, the PM<sub>10</sub> emission limits include both solid (filterable) and condensable particulate matter. Filterable PM<sub>10</sub> is measured with 40 CFR Part 60 Appendix A Method 5.
- t) Concentration limits are parts per million by volume corrected to 15% oxygen on a dry basis.
- u) When multiple or alternative limits apply, the most stringent governs.
- 3) Offsite Sulfur Oxides limits:

The Permittee shall not emit into the ambient air any sulfur oxide in such manner and amounts as to result in ground level concentrations at any place beyond the premises on which the source is located exceeding the limits shown in Table 5:

**Table 5**  
**Sulfur Dioxide Ambient Concentration Limits**

Concentration of Sulfur Dioxide (ug/cubic m)	Averaging Time (hours)
850	1
250	24
120	72

[SIP Rule 32 F]

- 4) Particulate Matter Limits (General):

The Permittee shall not cause, allow or permit the emission of particulate matter, caused by combustion of fuel from any emissions unit in excess of the amounts calculated by the following equation:

$$E = 1.02 Q^{0.769} \quad \text{where:}$$

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

Q= the heat input in million Btu per hour.

[ARS §49-106, State Rule R18-2-703.C.1 (R9-3-503.C.1),  
State Rule R18-2-719.C.1 (R9-3-519.C.1),  
State Rule R18-2-724.C.1 (R9-3-524.C.1), SIP Rule 31(H)]

5) Opacity Limits

a) The Permittee shall not discharge into the ambient air from any single source of emissions any air contaminant other than condensed water containing no more than analytical trace amounts of other chemical elements or compounds, in excess of 20 percent opacity, except the following:

(1) Startup and Shutdown: Visible emissions exceeding the opacity standards for short periods of time resulting from startup, shutdown, soot blowing or unavoidable combustion irregularities which do not exceed three minutes in length shall not constitute a violation provided that the Control Officer finds that adequate control technology has been applied.

(2) Emergencies: Unavoidable combustion irregularities which exceed three minutes shall not constitute a violation of these Permit Conditions providing the owner or operator demonstrate to the Control Officer's satisfaction that an emergency exists in accordance with County Rule 130 §201.

[locally enforceable only] [County Rule 300 §§ 301, 302.1,2]

b) Except as otherwise provided in Regulation I, Rule 4, Exceptions, the opacity of any plume or effluent from any source of emissions, other than uncombined water, shall not be greater than 40 percent opacity as determined by Reference Method 9 in the Arizona Testing Manual.

[SIP Rule 30]

v) On and after the date the particulate matter performance test required to be conducted under Permit Condition 22.B is completed, the Permittee shall not cause to be discharged into the atmosphere from any affected facility any gas which exhibits greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

[40CFR 60.42.a.(b)]

6) Permit Conditions for Units K-1, K-2, K-4, K-5, K-6 prior to startup (as defined by 40 CFR 60.2) of Gas Turbine K-7 or Duct Burner K-7, whichever occurs earlier.

The facility emission limits specified in this Permit Condition 18.A.6 shall apply only prior to startup (as defined by 40 CFR 60.2) of the Unit K-7 gas turbine or K-7 duct burner, whichever occurs earlier, except as provided in Permit Condition 18.A.7.

a) The Permittee shall not emit more than 1.0 pounds of sulfur dioxide, maximum two hours (three hours according to County Rule 320) average, per million BTU heat input when fuel oil containing less than 0.9 percent by weight of sulfur is fired in Units K-1 or K-2.

SIP Rule 32] [County Rule 320]

- b) The Permittee shall not emit more than 2.2 pounds of sulfur dioxide, maximum two hours average, per million BTU heat input when fuel oil containing 0.9 percent or more by weight of sulfur is fired in Units K-1 or K-2. [SIP Rule 32]
- c) An operating scenario shall be determined by the type of the fuel being burned by Units K-1, K-2, K-4, K-5, and K-6 and the amount of the sulfur in the fuel burned by each unit. Each unit is allowed to operate at its full capacity at any time.
- d) The Permittee shall be permitted for five (5) operating scenarios as defined in Table 6 for Units K-1, K-2, K-4, K-5, and K-6. The Permittee shall manage the facility so that its operation is in compliance with one of these scenarios whenever any of the steam Units K-1, K-2, K-4, K-5, or K-6 is in use. Used oil shall not be used as fuel.

**Table 6**  
**Operating Scenarios for Existing Units Prior to Unit K-7 Becoming**  
**Operationally Available for Dispatch**

SCENARIO	UNIT	SULFUR CONTENT	OPERATING RESTRICTIONS
1	1	0.0%	up to 100% gas fired
	2	up to 0.89%	up to 100% residual oil fired,
	4	0%	up to 100% gas fired
	5	up to 0.35%	up to 100% distillate oil fired
	6	up to 0.35%	up to 100% distillate oil fired
2	1	up to 0.35%	up to 100% distillate oil fired
	2	up to 0.89%	up to 100% residual oil fired
	4	0%	up to 100% gas fired
	5	up to 0.35%	up to 100% distillate oil fired, 12 hrs/day
	6	up to 0.35%	up to 100% distillate oil fired, 12 hrs/day
3	1	up to 0.35%	up to 100% distillate oil fired
	2	up to 0.35%	up to 100% distillate oil fired
	4	0%	up to 100% gas fired
	5	up to 0.35%	up to 100% distillate oil fired
	6	up to 0.35%	up to 100% distillate oil fired
4	1	up to 0.25%	up to 100% distillate oil fired
	2	up to 0.25%	up to 100% distillate oil fired
	4	up to 0.25%	up to 100% distillate oil fired
	5	up to 0.25%	100% distillate oil fired
	6	up to 0.25%	100% distillate oil fired
5	1	0.0%	up to 100% gas fired
	2	up to 0.89%	up to 100% residual oil fired
	4	up to 0.25%	up to 100% distillate oil fired, up to 12 hrs/day
	5	up to 0.25%	up to 100% distillate oil fired, up to 12 hrs/day factor
	6	up to 0.25%	up to 100% distillate oil fired, up to 12 hrs/day factor

[SIP Rule 32] [County Rule 210 §302.1]

- e) Monitoring Requirements For The Steam Units and Combustion Turbines:

(1) Monitoring Requirements For The Steam Units Only:

The Permittee shall meet the monitoring requirements as specified in 40 CFR 75 §§10, 11(d), §12(a).

[40 CFR 75, County Rule 371]

(2) Monitoring Requirements For The Steam Units Only:

The Permittee shall install, calibrate, maintain and operate in accordance with Rule 245 a continuous emission monitoring system for measurement of opacity for the boilers which meets the performance specifications of Rule 245 § 303.1 except if the Permittee is able to comply with the applicable particulate matter and opacity regulations without utilization of particulate matter collection equipment and if the Permittee has never been found through any administrative or judicial proceedings to be in violation of any visible emission standard of the applicable plan.

[County Rule 245]

*NOTE: Particulate matter emissions estimates based on AP-42 emissions factors are half those allowable under A.A.C. R-18-2-703. Therefore to demonstrate compliance only evidence that the units are operating properly is needed and opacity is used as a monitoring tool.*

(3) The Permittee shall keep records of sulfur content of the fuel being fired in each steam unit to monitor for the compliance with the sulfur dioxide limitations from these permit conditions. The sulfur content of the fuel oil stored in the tanks shall be established by testing the fuel oil each time the delivered fuel oil has a sulfur content equal or higher than 0.25% by weight. The Permittee shall obtain homogeneous sample of the fuel oil from the tank. In a case when delivered fuel oil has a sulfur content less than 0.25%, certification from the fuel supplier shall be sufficient to monitor for compliance with sulfur content requirements of these permit conditions. When fuel oil is delivered via pipeline the Permittee shall monitor for compliance with the fuel oil sulfur content standards of these Permit Conditions based on certification from the fuel supplier.

[County Rule 210]

(4) The Permittee shall monitor for compliance with the particulate matter emissions limits of the permit by taking a visual reading of the stack emissions from each steam unit and each combustion turbine using EPA Reference Method 22 each week of operation during which that equipment was used more than 10 hours. If emissions are visible, the Permittee shall obtain an opacity reading conducted in accordance with EPA Reference Method 9 by certified reader. This reading shall be taken within 3 days of the visible emissions and taken thereafter weekly until there are no visible emissions. If the problem is corrected before three days have passed, and no emissions are visible, the Permittee shall not be required to conduct the certified reading. If the Reference Method 9 reading exceeds 15 percent opacity, the Control Officer may require emissions testing by other EPA approved Reference Method such as Reference Method 5 to demonstrate compliance with the particulate matter emission limits of these Permit Conditions.

For the purposes of these Permit Conditions, a certified VE reader shall mean an individual who, at the time the reading is taken, is certified by the Arizona Department of Environmental Quality (ADEQ) or their qualified contractor, as meeting the training and testing requirements as specified in EPA Reference Method 9.

[County Rule 210, SIP Rule 31]

- (5) The Permittee shall monitor for compliance with the opacity requirements of these Permit Conditions by taking a visual reading of the stack emissions from each turbine and each steam unit using EPA Reference Method 22 during each week of operation in which that unit was used more than 10 hours. Reading shall not be taken during start-up, shut down or any other irregularities in the operation which do not exceed three minutes in length. If emissions are visible, the Permittee shall obtain an opacity reading conducted in accordance with EPA Reference Method 9 by a certified visible emissions (VE) reader. This reading shall be taken within 3 days of the observance of visible emissions and taken weekly thereafter during each week that the unit is in operation until there are no visible emissions. If the problem is corrected before three days has passed, and no emissions are visible, the Permittee shall not be required to conduct the certified reading.

[County Rule 210] [locally enforceable only]

f) Recordkeeping Requirements For The Steam Units And Combustion Turbines:

(1) Recordkeeping Requirements For The Steam Units Only:

The Permittee shall maintain a file of all measurements as required by Rule 210 § 302.1.d, including continuous monitoring system (SO<sub>2</sub>, CO<sub>2</sub>, and NO<sub>x</sub> emission records), monitoring device (operating parameter record; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR Part 75 Subpart F recorded in a permanent form.

[40 CFR Part 75 Subpart F][County Rule 210]

- (2) The Permittee shall keep all the records of the fuel supplier certification of the sulfur content of the oil being combusted in each steam unit and each combustion turbine. The supplier certification shall include:

- a) the name of the oil supplier
- b) the sulfur content of the oil from which the shipment came (or of the shipment itself)
- c) the method used to determine the sulfur content of the oil

[County Rules 320, 210 §302.1.c and SIP Rule 32]

- (3) If the Permittee performs the sampling procedure in order to determine fuel sulfur content of the oil, then the Permittee shall also keep the records of the location of the oil when the sample was drawn for analysis, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the facility or another location.

[County Rules 210 and 320] [SIP Rule 32]

- (4) The Permittee shall keep daily records of the type, sulfur content and amount of fuel used in each steam unit and each combustion turbine.  
[County Rules 210 and 320] [SIP Rule 32]
  - (5) The Permittee shall keep a daily log at the site listing the permitted operating scenario under which the steam units and combustion turbines are operating. The Permittee shall make an entry in the log listing any change from one permitted operating scenario to another. The listing shall be made contemporaneously with the change in operating scenarios.  
[County Rules 210 and 320] [SIP Rule 32]
  - (6) The Permittee shall log the opacity reading conducted in accordance with EPA Reference Method 22 and log the opacity reading conducted in accordance with EPA Reference Method 9. This information should include the date and time, when that reading was taken, results of the reading, name of the person who took the reading and any other related information as required by the protocol for EPA Reference Method 9.  
[County Rules 300, 210 and SIP Rule 30]
  - (7) The Permittee shall keep daily records of hours of operation for each steam unit and each combustion turbine.
- g) Reporting Requirements For The Steam Units And Combustion Turbines:
- (1) Reporting Requirements for the steam units only: The Permittee shall electronically report to EPA the data and information as required by 40 CFR Part 75.64 on a quarterly basis. Quarterly submittals shall include facility data, unit emission data, monitoring data, control equipment data, monitoring plans and quality assurance data and results.  
[40 CFR 75, County Rules 210 and 371]
  - (2) The Permittee shall file a semiannual compliance report starting from this permit issuance date within 30 days of the end of the 6-month period to the Division with attention to: Large Sources Compliance Supervisor including the following information:
    - a) Daily type of scenario under which was operated for each day of operation;  
[County Rules 210 and 320] [SIP Rule 32]
    - b) Hours of the operation for each steam unit and each combustion turbine;  
[County Rules 210 and 320] [SIP Rule 32]
    - c) Dates on which opacity readings were taken, the test method used, and the observed opacity;  
[County Rules 300, 210 and SIP Rule 30]
    - d) Fuel supplier certification regarding sulfur content for all fuel oil delivered during reporting period;  
[County Rules 210 and 320] [SIP Rule 32]
  - (3) If the Control Officer should approve the burning of high sulfur oil due to shortage of low sulfur oil, the Permittee shall submit monthly reports to the Control Officer detailing the efforts to obtain low sulfur oil.

[County Rule 320 and SIP Rule 32]

- 7) Permit Conditions for Units K-1, K-2, K-4, K-5, K-6 and K-7 after startup (as defined by 40 CFR 60.2) of Gas Turbine K-7 or Duct Burner K-7, whichever occurs earlier; but prior to K-7 becoming operationally available for dispatch or 180 days after startup of either Gas Turbine K-7 or Duct Burner k-7, whichever occurs earlier.

The facility emission limits specified in this Permit Condition 18.A.7 shall apply only during the period after K-7 startup (either gas turbine or duct burner) and prior to either K-7 becoming operationally available for dispatch, or the K-7 running emission totals for any one pollutant reaches the amounts shown in Table 7, or 180 days after startup, whichever occurs earlier.

- a) The Permittee shall operate existing Units K-1, K-2, K-4, K-5, and K-6, and the emissions shall be limited in accordance with Permit Condition 18.A.6.
- b) The total emissions from Unit K-7 (including periods of startup and shutdown) shall be limited to the amounts shown in Table 7. The Permittee shall daily calculate the emissions and compare the running total emissions to the limits in Table 7. The running total begins upon startup (as defined in 40 CFR 60.2) and ends when either Unit K-7 is operationally available for dispatch, or the emissions total for any one of the pollutants meets the limits in Table 7, or 180 days after startup, whichever occurs first. At that time, the facility emission and operational limits of Permit Condition 18.A.2 applies.

**Table 7**  
**Running Unit K-7 Emission Limits for The Period Between K-7 Startup**  
**and K-7 Becoming Operationally Available for Dispatch**

Device	Unit K-7 Running Total Emissions (tons)				
	SO <sub>2</sub>	NO <sub>x</sub>	CO	PM <sub>10</sub>	VOC
Combined Cycle System K-7 plus K-7 Cooling Tower	40	40	100	15	40

*Note: The running totals are equal to the annual significant emission rates defined in County Rule 100.200.97*

- c) The hourly emissions for NO<sub>x</sub>, CO, and VOC from Unit K-7 (including periods of startup and shutdown) shall be limited to the amounts shown in Table 3. The hourly emissions for PM<sub>10</sub> and SO<sub>2</sub> shall be limited to the amounts shown in Table 2.

**B. Emission Limitations For The Diesel Fire Pump Engines:**

The Permittee shall not cause, allow or permit the emissions from the diesel fire pump engines to exceed 20 percent opacity, 6-minute average, except for short periods of time resulting from startup, shutdown, or unavoidable combustion irregularities which do not exceed three minutes in length.

[County Rule 300 §§301, 302]

## 19. OPERATIONAL REQUIREMENTS

### A. Facility – Wide Operational Requirements:

- 1) After Unit K-7 becomes operationally available for dispatch or 180 days after startup (as defined by 40 CFR 60.2), whichever is earlier, the Permittee shall combust only pipeline quality natural gas with a sulfur content of 0.01 grains per dry standard cubic foot in all devices except the diesel fire pump engines, which shall burn only commercially available diesel fuel with sulfur content of 0.05 percent by weight or less.  
[County Rule 240 §308.1(a), (d), (e)] [County Rule 320 §306.4] [40 CFR 60.333(b)]
- 2) If the Permittee demonstrates to the Control Officer that pipeline quality natural gas is not available due to a national natural gas emergency, natural gas curtailment, unavoidable interruption of supply (e.g., catastrophic pipeline failure), or other similar event; the Permittee shall be authorized to combust fuel oil with sulfur content 0.05% or less in units K-1, K-2, K-4, K-5, and K-6 under such conditions as are justified. In cases where the Permittee is authorized to combust fuel oil, the Permittee shall submit monthly reports to the Control Officer detailing its efforts to obtain pipeline quality natural gas. When the conditions justifying the use of low sulfur fuel oil no longer exist, the Permittee shall combust only pipeline quality natural gas.  
[County Rule 320 §306.4] [locally enforceable only]
- 3) The Permittee shall not emit gaseous or odorous air contaminants from equipment, operations or premises under his control in such quantities or concentrations as to cause air pollution.  
[County Rule 320 §300] [locally enforceable only]
- 4) Materials including, but not limited to, solvents or other volatile compounds, paints, acids, alkalis, pesticides, fertilizer and manure shall be processed, stored, used and transported in such a manner and by such means that they will not unreasonably evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices or equipment shall be mandatory.  
[County Rule 320 § 302] [locally enforceable only]
- 5) Where a stack, vent or other outlet is at such a level that air contaminants are discharged to adjoining property, the Control Officer may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet to a degree that will adequately dilute, reduce or eliminate the discharge of air contaminants to adjoining property.  
[County Rule 320 § 303] [locally enforceable only]

### B. Operational Requirements for the Combined Cycle System K-7:

After Unit K-7 becomes operationally available for dispatch, the K-7 running emission totals for any one pollutant reaches the amounts shown in Table 7, or 180 days after startup, whichever occurs earlier; Combined Cycle System K-7 shall operate such that the total combined hours in both the startup and shutdown modes do not exceed 250 hours per



year, calculated on a rolling 12 calendar month basis, and 8 hours per calendar day. For purposes of this Permit Condition, startup and shutdown are as defined in Notes (c) and (d) after Table 4 in Permit Condition 18.A.2.

[County Rule 240 §308.1(a), (d), (e)]

C. Operational Requirements for the Cooling Tower:

The Unit K-7 cooling tower shall at all times be equipped and maintained with high efficiency drift eliminators certified by the cooling tower vendor to achieve less than 0.0005 percent drift. The total dissolved solids (TDS) content of the cooling water in the cooling tower shall not contain more than 3,500 milligrams per liter (mg/l) TDS.

[County Rule 240 §308.1(a), (d), (e)]

D. Operational Requirements for the Diesel Fire Pump Engines:

The Permittee shall operate the Diesel Fire Water Pump Engines only for emergency conditions or routine maintenance checks.

[County Rule 240 §308.1(a), (d), (e)]

E. Operational Requirements for the Selective Catalytic Reduction Emission Control Systems

- 1) The Permittee shall install, operate, and maintain a Selective Catalytic Reduction (SCR) system as part of Combined Cycle System K-7.
- 2) The Permittee shall submit an approvable Operations and Maintenance (O&M) Plan to the Department for the SCR system required by these Permit Conditions. The Plan shall be in a format acceptable to the Department and shall specify the procedures used to maintain the SCR system. The O&M Plan shall be submitted within 30 days after the equipment covered has been started up.
- 3) The Permittee shall at all times comply with the currently approved version of the O&M Plan.
- 4) The SCR control system shall be designed so it will not inject ammonia into the SCR system when the inlet temperature to the catalyst is less than the Minimum Catalyst Temperature to be established as part of the O&M Plans.

[County Rule 210 §302.1(c)(1) and §406]

F. Operational Requirements for the Carbon Monoxide and VOC Oxidation Catalyst Emission Control System

- 1) The Permittee shall install, operate, and maintain an Oxidation Catalyst Emission Control System (OX-ECS) to reduce emissions of CO and VOC as part of Combined Cycle System K-7.
- 2) The Permittee shall submit an approvable Operations and Maintenance (O&M) Plan to the Department for the OX-ECS required by these Permit Conditions. The Plan shall be in a format acceptable to the Department and shall specify the procedures used to maintain the OX-ECS. The O&M Plan shall be submitted within 30 days after the equipment covered has been started up.
- 3) The Permittee shall at all times comply with the currently approved version of the O&M Plan.

[County Rule 210 §302.1(c)(1) and §406]

G. Operational Requirements for the Continuous Emissions Monitoring Systems (CEMS)

- 1) The CEMS shall meet or exceed all applicable design, installation, operational, quality assurance, and all other applicable requirements of 40 CFR Parts 60 and 75.
- 2) Fuel flow monitors shall meet or exceed specifications contained in the current (as of July, 2000) American Gas Association Report Number 3.
- 3) The Permittee shall ensure that the CEMS are in operation and monitoring unit emissions at all times that Combined Cycle System K-7 combusts any fuel except during periods of calibration, quality assurance, preventive maintenance, repair, back-ups of data from the data acquisition and handling system, or recertification. Malfunctions shall be recorded and reported as required under 40 CFR Part 60 and Part 75.
- 4) The Permittee shall ensure that the design, installation, operation, maintenance, O&M/QA Plan(s), and on-site spare parts inventory are sufficient to ensure that the CEMS meet the data capture requirements of Permit Condition 20.E and 40 CFR Parts 60 and 75.
- 5) The Permittee shall submit an approvable Operations and Maintenance (O&M) Plan to the Department for each Continuous Emissions Monitoring System (CEMS) required by these Permit Conditions. The Plans shall be in a format acceptable to the Department and shall specify applicable operating parameters necessary to ensure continuous and accurate emissions monitoring. The O&M Plan shall be submitted within 30 days after the equipment covered has been started up.
- 6) The Permittee shall submit an approvable Quality Assurance Plan (QAP) to the Department for each CEMS required by these Permit Conditions. The Plans shall be in a format acceptable to the Department. If the QAP has not been approved as part of the application for this permit, then the QAP shall be submitted within 30 days after the equipment covered has been started up. The Permittee shall at all times comply with the QAP.
- 7) A combined O&M Plan and Quality Assurance Plan and/or a combined set of Plans for one or more CEM(s) may be submitted.
- 8) The Permittee shall at all times comply with the currently approved version of the O&M and QA Plans.
- 9) Within 90 days after commencement of commercial operations (as defined by 40 CFR 72.2), the Permittee shall certify the Unit K-7 CEMS with a Relative Accuracy Test Audit (RATA), linearity check, cylinder gas audit (CGA), bias check, 7-day calibration error check, and cycle time check.
- 10) The Permittee shall at least annually conduct a RATA and bias check on the Unit K-7 CEMS. The Permittee shall conduct RATA and bias checks as required by Part 75 on the Units K-1 and K-2 CEMS. The Permittee shall at least quarterly conduct linearity checks and cylinder gas audits (CGA) and shall at least daily conduct calibration error and drift checks on the Unit K-7 CEMS. More frequent audits and checks shall be conducted as required by 40 CFR Parts 60 and 75. Linearity checks, cylinder gas audits, and calibration error and drift checks on the Units K-1 and K-2 CEMS shall be conducted as required by Part 75.
- 11) The Permittee shall ensure that all calibration gases (including zero gases) are certified and current at all times.
- 12) The Permittee shall re-calibrate any CEMS after any maintenance activity that could affect the system calibration and shall re-certify as required by and within the time

periods required by 40 CFR 75.20(b) whenever the Permittee makes a replacement, modification, or change that may significantly affect the ability of the system to accurately measure or record emissions.

- 13) The Permittee shall develop and implement daily, monthly, quarterly, and annual maintenance checklists to ensure proper operation and accuracy of the CEMS. The checklists will be established as part of the O&M and QA Plans.
- 14) The Permittee shall maintain records of all certifications, calibrations, testing, maintenance (including completed maintenance checklists), and repairs made to the CEMS.

[County Rule 210 §302.1(c)(1)][40 CFR 60 Subparts Db and GG][40 CFR 75 Subparts A, B, C, Appendix A, Appendix B]

## **20. MONITORING/RECORDKEEPING REQUIREMENTS**

- A. The Permittee shall hourly monitor and record the hours of operation and operating mode (startup, shutdown, or normal) of Combined Cycle System K-7; Combined Cycle System K-7 exhaust temperature prior to entering the Selective Catalytic Reduction System and the OX-ECS; the amount of natural gas combusted in individual Existing Units K-1, K-2, K-4, K-5, and K-6 and Combined Cycle System K-7 (including individually Duct Burner K-7); and the actual heat input of Combined Cycle System K-7 (including individually Duct Burner K-7). The Permittee shall monthly calculate the twelve-month total hours of operation in each mode for Combined Cycle System K-7. The Permittee may monitor the combined fuel usage of K-1 and K-2; and the combined fuel usage of K-4, K-5, and K-6 instead of individually. The Permittee shall monthly calculate and record the emissions from units K-1, K-2, K-4, K-5, K-6, and K-7 and shall monthly compare the calculated emissions to the limits contained in the Permit.

[County Rule 210 §302.1(c)(1)]

- B. The Permittee shall record the actual hours of operation and the reason for operation of the diesel fire water pump engines and the nature of the emergency or maintenance check that caused the engines to be used. The Permittee shall monthly calculate the twelve-month total hours of operation.

[County Rule 210 §302.1(c)(1)]

- C. Within 90 days after commencement of commercial operation as defined by 40 CFR 72.2, the Permittee shall install, calibrate, certify, and operate a continuous emission monitor (CEMS) for Combined Cycle System K-7 exhaust stack to continuously measure carbon monoxide, oxides of nitrogen, and either carbon dioxide or oxygen content of the exhaust stream. The oxides of nitrogen CEM shall be installed in accordance with 40 CFR 60 Subpart Db, Section 60.48b((b)(1) and 40 CFR 75 requirements. Hourly average, rolling three-hour, and rolling 24-hour average values shall be continuously recorded.

[County Rule 210 §302.1(c)(2)][40 CFR 60 Subpart Db, Section 60.48b((b)(1))  
[40 CFR Part 75]

- D. The Permittee shall maintain, calibrate, certify, and operate a continuous emission monitor (CEMS) for Existing Units K-1 and K-2 individual exhaust stacks to continuously measure oxides of nitrogen and either carbon dioxide or oxygen content of the exhaust stream in accordance with 40 CFR 75 requirements. Hourly average values shall be continuously recorded. The Permittee may substitute alternative methods of calculating emissions from

Units K-1 and K-2 once Unit K-7 becomes operationally available for dispatch in accordance with 40 CFR Part 75 for "low mass emitters" upon approval of the Control Officer.

[County Rule 210 §302.1(c)(2)][40 CFR Part 75]

- E. The continuous emission monitors for Combined Cycle System K-7 must obtain valid data for at least 18 of every 24 hours in at least 22 of every 30 consecutive days of operation.

[County Rule 210 §302.1(c)(2), County Rule 360,  
40 CFR 60 Subpart Db, §60.48b(f)]

- F. Within 90 days after the commencement of commercial operations as defined by 40 CFR 72.2, the Permittee shall install, calibrate, certify, and operate natural gas fuel flow meters to individually monitor the unit-specific fuel flow to the Existing Units K-1, K-2, K-4, K-5, and K-6 and Combined Cycle System K-7 (including individually Duct Burner K-7). The Permittee may substitute one monitor for combined fuel flow to Units K-1 and K-2; and another monitor for combined fuel flow to Units K-4, K-5, and K-6 combined.

[County Rule 210 §302.1(c)(2)][40 CFR Part 75]]

- G. The Permittee shall monitor for compliance with the sulfur dioxide limits of Table 5 and Permit Condition 19.A.1 of this permit by obtaining and recording the sulfur content of the pipeline quality natural gas used in the Existing Units K-1, K-2, K-4, K-5, and K-6 and Combined Cycle System K-7 using the following custom monitoring schedule:

- 1) The Permittee shall monitor sulfur content of the pipeline quality natural gas at least once every calendar quarter.
- 2) If at any time a fuel sulfur analysis indicates noncompliance with the fuel sulfur limit in Condition 19.A.1 of this Permit, the Permittee shall notify the Administrator and the Department of such excess emissions within one week of the analysis.
- 3) In the event of such noncompliance, the Permittee shall conduct fuel sulfur monitoring weekly until notified by the Administrator and the Department that less frequent monitoring is acceptable.
- 4) The Permittee shall determine compliance with the sulfur content limit in Condition 19.A.1 of this Permit by using measurement methods ASTM Method D172-80, ASTM Method D3031-81, ASTM Method D3246-81, or ASTM Method D4084-82 either at the site or upstream or downstream of the site. If the applicable ranges of these ASTM methods are not adequate to measure the levels of sulfur, dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator and the Control Officer.

[County Rule 210 §302.1(c)(2)][40 CFR 60.335(d), (e), §334(b)(2)]

- H. The Permittee shall obtain and record the Gross Caloric Value of the natural gas used in the Combined Cycle System K-7 as required by 40 CFR Part 75, Appendix D at least as frequently as required by 40 CFR Part 75, Appendix D and Appendix G. If required by 40 CFR Part 75, the Gross Caloric Value of the natural gas used in Existing Units K-1 and K-2 shall also be obtained.

[County Rule 371] [40 CFR 75]

- I. Within 90 days after the commencement of commercial operations for Combined Cycle System K-7 as defined by 40 CFR 72.2, the Permittee shall install, certify, and operate on the SCR system monitors to measure the ammonia injection rate. The flow meters will be

sampled by a data acquisition system at a frequency of no less than once every 15 minutes and averaged into rolling 24 hours periods. These data will be used to verify compliance with the ammonia emission limits of Table 4 and the emissions testing requirements of Table 8.

[County Rule 210 §302.1(c)(1)]

- J. The Permittee shall monthly inspect the Unit K-7 Wet Cooling Tower drift eliminators for proper installation, maintenance, and operation. The results of the inspection shall be recorded in a facility log.

[County Rule 210 §302.1(c)(2)]

- K. The Permittee shall daily monitor and record the conductivity of the Unit K-7 Cooling Tower water and shall monthly monitor and record the Total Dissolved Solids (TDS) content of the Unit K-7 Cooling Tower water.

[County Rule 210 §302.1(c)(1)]

- L. The Permittee shall monthly conduct a facility walk-through and observe visible emissions from Existing Units K-1, K-2, K-4, K-5, and K-6 and Combined Cycle System K-7 exhaust stacks and the diesel-fueled Fire Water Pump Engines. The Permittee shall log the visual observations, including the date and time when that reading was taken, results of the reading, name of the person who took the reading and any other related information.

[County Rules 300, 210 §302.1(c)(1) and SIP Rule 30]

- M. If visible emissions are observed from any device capable of emitting any air contaminant other than condensed water containing no more than analytical trace amounts of other chemical elements or compounds; the Permittee shall obtain an opacity reading conducted in accordance with EPA Reference Method 9 by a certified visible emissions (VE) reader. This reading shall be taken within 3 days of the observance of visible emissions and taken weekly thereafter during each week that the unit is in operation until there are no visible emissions. If the problem is corrected before three days has passed, and no emissions are visible, the Permittee shall not be required to conduct the certified reading. The Permittee shall log the visual observations, including the date and time when that reading was taken, results of the reading, name of the person who took the reading and any other related information.

[County Rule 210 §302.1(c)(1)] [SIP Rule 31]

- N. Opacity Readings

- 1) Opacity shall be determined by observations of visible emissions conducted in accordance with 40 CFR Part 60 Appendix A, Method 9.

[40 CFR 60.11.b] [County Rule 300 §§501]

- 2) Opacity of visible emissions from intermittent sources as defined by County Rule 300 §201 shall be determined by observations conducted in accordance with 40 CFR Part 60 Appendix A, Method 9, except that at least 12 rather than 24 consecutive readings shall be required at 15-second intervals for the averaging time.

[County Rule 300 §§501 and 502] [locally enforceable only]

- O. The Permittee shall monitor for compliance with the particulate matter emissions limits of the permit by taking a visual emission observation of the stack emissions from each Combined Cycle System K-7 during each week of operation that the equipment was used

more than 10 hours. If emissions are visible, the Permittee shall obtain an opacity reading conducted in accordance with 40 CFR Part 60 Appendix A, Method 9 by a certified reader. This reading shall be taken within 3 operating days of the visible emission and taken thereafter weekly for each week when operations occur until there are no visible emissions. If the condition causing the visible emissions is eliminated before three days have passed, and no emissions are visible, the Permittee shall not be required to conduct the certified reading. If visible emissions are present, the Control Officer may require emissions testing by other approved Reference Methods such as 40 CFR 60 Appendix A Method 5 to monitor for compliance with the particulate matter emission limits of these Permit Conditions.

For purposes of these Permit Conditions, a certified visible emissions reader shall mean an individual who, at the time the reading is taken, is certified according to the County Rule Appendix C, Section 3.4.

[County Rule 210 §302.1.c(2) and SIP Rule 31]

- P. The Permittee shall maintain a log of complaints of odors detected off-site. The log shall contain a description of the complaint, date and time that the complaint was received, and if given, name and/or phone number of the complainant. The logbook shall describe what actions were performed to investigate the complaint, the results of the investigation, and any corrective actions that were taken.

[SIP Rule 32][County Rules 320 and 210 §302.1]

- Q. The Permittee shall maintain a file of all measurements as required by County Rule 210 §302.1.d, including continuous emission monitoring system emission records; operating parameter records; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR Part 75 Subpart F and 40 CFR 60.49b recorded in a permanent form for at least five years.

[40 CFR 60.49b][40 CFR Part 75 Subpart F][County Rules 210 and 371]

- R. The Permittee shall keep all the records of the fuel supplier certification for the diesel fuel being combusted for at least five years. The supplier certification shall include:

- 1) the name of the supplier,
- 2) the sulfur content of the fuel,
- 3) the method used to determine the sulfur content of the fuel,
- 4) the date that the fuel was delivered to the site, and
- 5) the date that the fuel was sampled for sulfur content.

[County Rules 320, 210 §302.1.c and SIP Rule 32]

- S. In addition to summary information provided in the Compliance Report submitted under Condition 21.D, the Permittee shall maintain on site at least the following information that demonstrates the conclusions reached in the Compliance Report:

- 1) Hours of operation and amount and type of fuel burned each hour for each Unit; and hours of operation of each diesel fire pump engine.

[County Rules 210 and 320] [SIP Rule 32]

- 2) Amount of natural gas combusted during each day in Duct Burner K-7 and the annual capacity factor of Duct Burner K-7 as determined on a 12-month rolling average basis.

- [County Rules 360 §301 and 40 CFR 60.49b(d)]
- 3) Dates on which visible emissions observations were taken, the test method used, and the results of the observations.
- [County Rules 300, 210 and SIP Rule 30]
- 4) Continuous Emissions Monitoring data related to the emission limits contained in this permit, calibrations, quality assurance, performance demonstrations, and certifications for the reporting period.
- [County Rule 210]
- 5) Stack emissions test results related to emission limits and/or operational requirements in this Permit.
- [County Rule 210]
- 6) Cooling tower inspection log and results of conductivity and TDS monitoring.
- [County Rule 210]
- 7) Odor log.
- [County Rule 210]
- 8) Any other records and reports required by any Permit Condition contained in this Permit.
- [County Rule 210]

## 21. REPORTING REQUIREMENTS

- A. The Permittee shall file a written notice with the Control Officer as described in 40 CFR 60.7 and 40 CFR 60.49b(a) as follows:
- 1) A notification of commencement of construction of Combined Cycle System K-7 postmarked within 30 days of such date.
  - 2) A notification of the actual date of initial startup of the Gas Turbine K-7 and Duct Burner K-7 postmarked within 15 days of such dates. The notification shall include the design heat input capacity, the expected annual capacity factor, and the type of fuel combusted in Duct Burner K-7.
  - 3) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under 40 CFR 60.14(e). This notice shall be postmarked within 60 days or as soon as commenced and shall include information describing the precise nature of the change, present and proposed emissions control systems, productive capacity of the facility before and after the change, and the expected completion date of the change.
  - 4) Copies of the notifications required by this Permit Condition shall be sent to the Administrator of the United States Environmental Protection Agency (USEPA).
- [County Rule 360 §301]  
[40 CFR 60.7(a), (b), (f)] [40 CFR 60.14(e)] [40 CFR 60.49b(a)]
- B. In addition to other reports required by this Permit, unless a waiver is obtained from the USEPA and accepted by the Control Officer, the Permittee shall report nitrogen oxides concentrations for Duct Burner K-7 to the Control Officer semiannually for each six month period post marked no later than the 30<sup>th</sup> day following the end of each six month period as required by 40 CFR 60.7(c), 40 CFR 60.7(d), 40 CFR 60.49b and 40 CFR 60.46b(c) as follows:
- 1) The initial performance evaluation test data of the Continuous Emissions Monitor and any subsequent performance evaluation test data.
- [40 CFR 60.49b(b)]

- 2) For each 24-hour period, beginning at 12:01 AM and ending at 12:00 midnight, the following information shall be reported to the Control Officer:
  - a) Calendar date
  - b) The average hourly nitrogen oxides emission rates (expressed as NO<sub>2</sub> in terms of lb/mmBtu heat input) measured or predicted.
  - c) 30-day average nitrogen oxide emission rate in terms of lb/mmBtu calculated each duct burner operating day for the preceding 30 duct burner operating days, reasons for non-compliance with the emission limits; and, description of corrective action taken.
  - d) Identification of duct burner operating days for which nitrogen oxide or diluent data have not been obtained for at least 18 hours of operation of the duct burner; justification for not obtaining sufficient data; and description of corrective actions taken.
  - e) Identification of the times when emissions data have been excluded from the calculation rates because of startup, shutdown, malfunction, or other reasons, and justification for excluding data for reasons other than startup, shutdown, or malfunction.
  - f) Identification of the "F" factor used for calculations and method of determination.
  - g) Identification of times when hourly averages have been obtained based on manual sampling methods.
  - h) Identification of the times when the pollutant concentrations exceeded full span of the continuous monitoring system.
  - i) Description of any modifications to the continuous emissions monitoring system which could affect the ability of the continuous monitoring system to comply with Performance Specifications required by 40 CFR Part 75.
  - j) Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR 60, Appendix F, Procedure 1.
  - k) For purposes of this subsection, a "duct burner operating day" is a 24-hour period beginning at 12:01 AM and ending at 12:00 midnight during which natural gas is combusted in a duct burner for the entire 24 hours.

[40 CFR 60.49b(g), 60.49b(i), 60.49b(w)]
- 3) For any periods for which nitrogen oxides emissions data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system are to be compared with operation of the control system before and following the period of data unavailability.

[40 CFR 60.7(d)]
- 4) The Permittee shall submit a signed statement Indicating whether:
  - a) The required continuous emission monitoring system calibration, span, and drift checks or other period audits have or have not been performed.
  - b) The data to show compliance was or was not obtained in accordance with approved methods and procedures and is representative of plant performance.
  - c) The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.
  - d) Compliance with the standards has or has not been achieved during the reporting period.

[40 CFR 60.7(d)]



- 5) The Permittee shall submit an excess emissions report for NO<sub>x</sub> emissions from the Unit K-7 duct burners and a Unit K-7 NO<sub>x</sub> continuous emissions monitoring system (CEMS) performance report as required by 40 CFR 60.7(c) and the summary report form required by 40 CFR 60.7(d). The reports shall be prepared in accordance with 40 CFR 60.7(c)(1), (2), (3) and 40 CFR 60.7(d). When no excess emission have occurred or the CEMS have not been inoperative, repaired, or adjusted, such information shall be stated in the reports. If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and the CEMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form specified in 40 CFR 60.7(d) shall be used and no excess emissions report shall be required.

[40 CFR 60.7(c) and (d)]

- 6) Data reported under this Permit Condition shall not include data substituted using the missing data procedures in Subpart D of Part 75 nor shall the data have been bias adjusted according to the procedures of Part 75.

[40 CFR 60.48b(b)(2)].

- 7) The Permittee may submit electronic reports for the information required by this Permit Condition upon coordination with the Control Officer to develop the required format and including a signed statement that indicates whether compliance with the emissions standards and minimum data requirements of this Permit were achieved during the reporting period.

[40 CFR 60.49b(v)]

- C. The Permittee shall report the information required by 40 CFR 75.61 (Notifications), 75.62 (Monitoring Plan Submittals), 75.63 (Initial Certification or Recertification Application Submittals) and 75.64 (Quarterly Reports) for Existing Units K-1, K-2, and K-7 in accordance with 40 CFR Part 75 Subpart G. The Permittee shall electronically report to EPA the data and information as allowed by 40 CFR Part 75, Subpart G. Submittals shall include facility data, unit emission data, monitoring data, control equipment data, monitoring plans and quality assurance data and results as required by 40 CFR Part 75.

[40 CFR 75 Subpart G, County Rules 210 and 371]

- D. The Permittee shall file a semiannual Compliance Report no later than April 30th, and shall report the compliance status of the source during the period between October 1st of the previous year and March 31st of the current year. The second certification shall be submitted no later than October 31st and shall report the compliance status of the source during the period between April 1st and September 30th of the current year. The initial Compliance Report shall reflect the compliance status of the source beginning with the date of the permit issuance. The Compliance Report shall include the following information:
- 1) Summary of compliance status with respect to each condition contained in this permit; including, but not limited to a description of the basis for the summary conclusions with respect to each permit condition.
  - 2) Description of and an explanation for any deviations from any permit condition at any time.
  - 3) A certification that construction has not been discontinued or suspended for 18 months or more. Once construction is complete, a certification that the facility has been constructed as required by this Permit and construction has been completed.

[County Rule 210]

## 22. TESTING REQUIREMENTS

### A. The following apply to all emissions testing required by this Permit Condition:

- 1) The Permittee shall submit an approvable test protocol to the Department, for review and approval at least 30 days prior to the emissions test. A fee for each stack to be tested shall be submitted with the test protocol as required by County Rule 280.  
[County Rule 270 and 280 §301.5]
- 2) The Permittee shall notify the Department in writing at least two weeks in advance of the actual time and date of the emissions test so that the Division may have a representative attend.  
[County Rule 270 §404]
- 3) The Permittee shall complete and submit a report to the Department within 30 days after completion of the emissions test. The report shall summarize the results of the testing in sufficient detail to allow a compliance determination and demonstration of the appropriate ammonia Molar Ratio value (Permit Condition 22.C) to be made.  
[County Rule 270 §401]

*Note: All protocols, notifications and reports required by this permit condition should be addressed to the attention of the Compliance Testing Supervisor.*

### B. Testing Requirements for Combined Cycle System K-7:

The Permittee shall monitor for compliance with the emission limits of Table 1, 2, and 4 by conducting stack emissions tests as specified in Table 8.

[County Rule 210 §302.1(c)(2) and (3)] [locally enforceable only][40 CFR 60.8]

**Table 8**  
**Stack Emissions Test Requirements**

Device to be Tested	Pollutant	Method	Frequency
Combined Cycle System K-7 when Operating with Duct Burners ON and 95% to 105% of rated capacity of the Combined Cycle System	NO <sub>x</sub> CO PM <sub>10</sub> VOC	Method 7e Method 10 Method 5 and 202 Method 25a and 18	Startup and every twelve (12) months thereafter for VOC and PM <sub>10</sub> , every sixty (60) months thereafter for NO <sub>x</sub> and CO.
Combined Cycle System K-7 when Operating with Duct Burners ON and 95% to 105% of rated capacity of the Combined Cycle System	Ammonia	Method specified by the Control Officer	Startup and every sixty (60) months thereafter or, for any individual Combined Cycle System, within ninety (90) days of the ammonia (NH <sub>3</sub> ) injection rate exceeding the value determined by Permit Condition 22.C in a single Combined Cycle System and sixty (60) months thereafter, whichever is more frequent
Combined Cycle System K-7 when Operating with Duct Burner K-7 OFF and 95% to 105% of rated capacity of Gas Turbine K-7	NO <sub>x</sub> CO PM <sub>10</sub> VOC	Method 7e Method 10 Method 5 and 202 Method 25a and 18	Startup and every twelve (12) months thereafter for VOC and PM <sub>10</sub> , every sixty (60) months thereafter for NO <sub>x</sub> and CO; unless all emission limits in Tables 2 and 4 of this Permit are met with Duct Burners ON
Combined Cycle System K-7 when Operating with Duct Burner K-7 OFF and 60% to 80% of rated capacity of Gas Turbine K-7	NO <sub>x</sub> CO	Method 7e Method 10	Upon Initial Startup
Combined Cycle System K-7 when Operating with Duct Burner K-7 OFF and 60% to 80% of rated capacity of Gas Turbine K-7	PM <sub>10</sub> VOC	Method 5 and 202 Method 25a and 18	Startup and every twelve (12) months thereafter

[County Rule 210 §302.1(c)(2) and (3)] [locally enforceable only][40 CFR 60.8]

- a) For purposes of testing frequency, “startup” is defined as “Within 60 days of achieving maximum production rate of the Combined Cycle System, but not later than 180 days after actual startup”.
  - b) “Method” refers to 40 CFR Part 60 Appendix A emissions testing methods.
  - c) Rated capacity means the nameplate capacity specified in Appendix A of this permit adjusted for current ambient conditions.
- C. The ammonia (NH<sub>3</sub>) injection rate that triggers additional source testing as required in Table 8 shall be determined as follows:

- 1) The Trigger Rate is established by the following equation:

$$\text{Trigger Rate} = 29.7 + 1.522 \times 17.034 \times \text{MR},$$

Where:

Trigger Rate is pounds ammonia (NH<sub>3</sub>) per hour for one Combined Cycle System,  
 29.7 is the pounds of ammonia emitted at 10 ppm ammonia slip,  
 1.522 is the moles of NO<sub>x</sub> to be reacted at full load with Duct Burners ON,  
 17.034 is the molecular weight of ammonia, and

MR is the Molar Ratio of  $\text{NH}_3$  to  $\text{NO}_x$ .

- 2) A default Molar Ratio (MR) of 1.50 shall be used unless an alternative MR is determined by the Control Officer or the Administrator to be more representative. The initial (upon startup), follow-up stack emissions tests, and/or other emissions monitoring data (whether or not required in Table 8) may be used if acceptable to the Control Officer to determine an alternative MR.

[County Rule 210 §302.1(c)(2) and (3)]

## 23. OTHER REQUIREMENTS

### A. PERMIT SHIELD:

Compliance with the conditions of this Permit shall be deemed compliance with the applicable requirements identified in Appendix B of this Permit. The Permit Shield extends to the non-applicable requirements identified in Appendix C of this permit. The Permit Shield shall not extend to minor permit revisions.

[County Rule 210 §§405.7, 407]

### B. COMMENCEMENT OF CONSTRUCTION:

The facility shall commence construction (as defined in County Rule 100.200.32) of Combined Cycle System K-7 within 18 months of the effective date of this Permit. If construction is not commenced within 18 months, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time, this Permit shall become invalid. The Control Officer shall terminate this Permit if construction is not begun within 18 months or if construction is suspended for more than 18 months.

[40 CFR 52.21(r)(2)][County Rule 240.304.4]

### C. OFFSET PLAN

Based on the certified information contained in the Air Emissions Offset Plan submitted with the application for this Permit, the facility has demonstrated that sufficient creditable emission are available to offset the emissions from this project as follows:

Pollutant	Project Net Emissions Increase	Distance Between Offset Location and Project	Offset Ratio	Offsets Required
$\text{PM}_{10}$	53.3	0 to 1 mile	1.05:1	56.0
		1.1 to 3 miles	1.10:1	58.6
		3.1 to 10 miles	1.30:1	69.3
		>10 miles	1.50:1	80.0

The Applicant shall submit to the Control Officer proof of installation of required control technologies to implement these emission reductions 10-days prior to the first initial start-up of any unit covered by this permit. Any change to the proposed Air Emissions Offset Plan shall be submitted for approval by the Control Officer.

[County Rule 240 §306.1]

### D. ACID RAIN PERMIT:

- 1) The Acid Rain Phase II Permit Application and Certificate of Representation signed by the Designated Representative on July 27, 2000 and submitted to the Control Officer,

shall constitute the Permittee's Acid Rain Permit for Existing Units K-1, K-2, and Combined Cycle System K-7.

*Note: The Acid Rain Program does not apply to Existing Units K-4, K-5, and K-6.*

- 2) The Permittee shall comply with the Acid Rain Permit, 40 CFR Parts 72, 73, and 75, and the Acid Rain requirements of Permit Condition 6.A.
- 3) The relevant Conditions of this Permit and the Acid Rain Permit, including but not limited to, the Allowable Emission Limits, Operation Requirements, Monitoring/Recordkeeping Requirements, Reporting Requirements, and Testing Requirements shall constitute the Compliance Plan required by 40 CFR Part 72 Subpart D.
- 4) The Permittee shall hold SO<sub>2</sub> Allowances as of the allowance transfer deadline in each affected unit's compliance subaccount not less than the total annual actual emissions of SO<sub>2</sub> for the previous calendar year from each affected unit as required by the Acid Rain Program.
- 5) The SO<sub>2</sub> Allowance Allocations and NO<sub>x</sub> Requirements for each affected unit are as follows:

**Table 9**

Affected Unit	Pollutant	Years 20–0 - 2009	Years 2010 and beyond
Existing Unit K-1	SO <sub>2</sub>	7	7
Existing Unit K-2	SO <sub>2</sub>	18	18
Existing Units K-1 and K-2	NO <sub>x</sub>	These units are not subject to a NO <sub>x</sub> limit under 40 CFR Part 76	
Combined Cycle System K-7	SO <sub>2</sub>	NA	NA
Combined Cycle System K-7	NO <sub>x</sub>	This unit is not subject to a NO <sub>x</sub> limit under 40 CFR Part 76	

NA means No Allocations are available since this is a new unit.

[40 CFR 72, 73, and 75]

**24. PERMIT CONDITIONS FOR SURFACE COATING OPERATIONS:** *(Note: This does not include architectural coatings which is covered elsewhere in these permit conditions):*

[Country Rules 336]

A. Operational Limitations:

The Permittee shall conduct any surface coating operation in accordance with Country Rules 315 and 336, SIP Rules 34 and 336.

**TABLE 10**

<b>SURFACE COATING EMISSION LIMITS</b>		
TYPE OF SURFACE COATING  <b>Column I</b>	LIMITS AS APPLIED: VOC content minus exempt compounds	
	<b>Column II</b> lbs/gal	g/liter
<b>Can Coating</b>		
Sheet Basecoat (Exterior and Interior) and Overvarnish	2.8	340
Two-Piece Can Exterior (Basecoat and Overvarnish)	2.8	340
Two and Three-Piece Can Interior Body Spray	4.2	510
Two-Piece Can Exterior End (Spray or Roll Coat)	4.2	510
Three-Piece Can Side-Seam Spray	5.5	660
End Sealing Compound	3.7	440
Can Printing Ink	2.5	300
<b>Coil Coating (any coat)</b>	2.6	310
<b>Metal Furniture Coating</b>	3.0	360
<b>Large Appliance Coating</b>	2.8	340
<b>OTHER METAL PARTS AND PRODUCTS COATING</b>		
The following includes Non-adhesive Coating, Adhesive, Adhesive Primer, Caulking, and Beaded Sealants:		
<b>Air-Dried Coating</b>	3.5	420
<b>Baked Coating</b> [above 200°F (93°C)]	3.0	360
<b>Silicone Release Coating:</b> Baked or Air-Dried	3.5	420
<b>Fabric Coating</b>	2.9	350
<b>Film Coating</b>	2.9	350
<b>COATING PLASTIC PARTS AND PRODUCTS THAT ARE Not Defined as Flexible</b>	3.5	420
<b>COATING FLEXIBLE PLASTIC PARTS AND PRODUCTS</b>		
Primer	4.1	490
Color Topcoat	3.8	450
Basecoat/Clear Coat (Combined System) – Limit for either coat	4.5	540
<b>Paper Coating, including Adhesives</b>	2.9	350
<b>Vinyl Coating (Coating on Vinyl)</b>	3.8	450
<b>STRIPPABLE BOOTH COATINGS</b>	2.0	240

- B. Application Methods. The Permittee shall employ one of the following for all applications of surface coating containing more than 2 pounds of VOC per gallon (240 g/L) minus exempt compounds:
- 1) A low pressure spray gun; or
  - 2) An electrostatic system; or
  - 3) A system that atomizes principally by hydraulic pressure, including “airless” and “air assisted airless”; or
  - 4) Non-atomizing or non-spraying application methods, such as but not limited to dipping, rolling, or brushing; or

- 5) Any method which is approved by the Administrator and the Control Officer as having a transfer efficiency of 65% or greater.

[County Rule 336 Section 302]

- C Cleanup of Application Equipment. The Permittee shall not use cleanup solvents containing VOC which, as used, has a VOC-vapor pressure greater than or equal to 35 mm Hg at 20 degrees C except for sprayless equipment exempted pursuant to Rule 336, Subsection 305.6. The procedures required by Rule 336, Section 303.1 shall be used for during cleanup.

[County Rule 336 Section 303]

- D Handling and Disposal of VOC. The Permittee shall follow the procedures required by Rule 336, Section 304 to minimize the potential for VOC emissions from VOC-containing material.

[County Rule 336 Section 304]

- E. Recordkeeping: The Permittee shall:

- 1) Maintain a current list of coatings, adhesives, reducers, thinners, gun-cleaning materials, additives, and any other VOC-containing materials regulated by this rule; give the VOC content of material for each as received (before thinning). A complete, neat assemblage of this data meets the requirements for a list. Express VOC content in 1 of 3 forms: pounds VOC per gallon, grams VOC per liter, or the percent VOC by weight along with the specific gravity or density (2 numbers are required).

For all coatings the Permittee shall make the following listings for coatings and adhesives that have VOC limits in Table 1 of this Permit Condition:

- a) VOC before reducing: The VOC content of each coating as received, minus exempt compounds. (This figure is sometimes called the "EPA Method 24" VOC content on manufacturer's data sheets). If the coating is a multi-part coating, list the VOC content which the manufacturer states the coating will have once the Permittee have mixed all the necessary parts together in the proportions specified by the manufacturer.
- b) List maximum VOC content of coating as applied: For each coating that was thinned/reduced or added any additive to, The Permittee shall record in a permanent log either of the following:
- 1) the maximum number of fluid ounces thinner/reducer that the Permittee ever add to a gallon of unreduced coating (or maximum g/liter), and the maximum fluid ounces of every other additive the Permittee mixes into a gallon of the coating; or
  - 2) the VOC content of the coating, after adding the maximum amount of thinner/reducer and other additives that the Permittee would ever add, as determined by the formula in County Rule 336 subsection 255.1.
- c) Applicator cleanup solvent: Have a hardcopy of the VOC vapor pressure (VP) at 20°C (68°F) of solvent(s) used to clean spray guns, hoses, reservoirs, and any other coating application equipment. Any one of the following ways of providing the VP data is sufficient:

- 1) A current manufacturer's technical data sheet,
- 2) A current manufacturer's safety data sheet (MSDS),
- 3) Actual test results, or
- 4) A letter signed by an official or lab manager of the supplying facility.

The Permittee shall monthly update records of each coating used that complies with the VOC limits in Table 1 of this Permit Condition. Complete a month's update by the end of the following month.

The Permittee shall daily update the usage of each coating that exceeds its limits in Table 1 of this Permit Condition, including coating exempted by Rule 336 subsection 305.4c.

- 2) If the Permittee uses less than 2-gallons per day total of thinner and coating (listed in Table 1), the Permittee shall keep only the following records:
  - a) All purchase receipts/invoices of VOC-containing material that is regulated by this rule for the most recent 12 months are kept together; and
  - b) Current data sheets show the VOC content of material for every VOC-containing substance currently used in surface coating operations.

The Permittee shall update each month's records of coating use by the end of the following month.

[County Rule 336 Section 501.1.b.1]

- F. Testing Methods: If testing is needed or required by the Control Officer the applicable testing procedures contained in County Rule 336 § 503 shall be used.

[County Rule 336 § 503]

- G. Reporting: The Permittee shall file a semiannual compliance report starting from this permit issuance date within 30-days of the end of the 6-month period to the Division with attention to: Large Sources Compliance Supervisor containing monthly usage records of each VOC-containing material related to surface coating, material list and a list of the coatings which are exempt from the volatile organic compounds content requirements.

[County Rule 210 Section 302.1.e.(1)]

## **25. PERMIT CONDITIONS FOR THE SOLVENT CLEANERS:**

- A. Operational Limitations: The Permittee shall equip and operate any solvent degreaser/cleaner according to the applicable requirements of the County Rule 331, SIP Rule 34 and SIP Rule 331.
- B. Recordkeeping: The Permittee shall:
  - 1) Maintain a current list of solvents; state the VOC content of each in pounds per gallons or grams per liter. The VOC content of solvents and any liquids used as cleaning or degreasing agents shall be stated with water and non-precursors excluded.
  - 2) Maintain monthly records showing the type and amount of each make up solvent added and any other VOC-containing materials used.



- 3) Perform and record weekly visual inspections of all cold degreasing equipment to verify compliance with these Permit Conditions. Record observed problems, if any, and corrective actions.

[County Rule 331]

- C. Testing Methods: If testing is required by the Control Officer the applicable testing procedures contained in County Rule 331 [locally enforceable only] and SIP Rule 331 shall be used.

[County Rule 331 § 502, SIP Rule 331 § 502]

- D. Reporting: Starting from this permit's issuance date the Permittee shall file a semiannual compliance report within 30 days of the end of the six-month period to the Division with attention to: Large Sources Compliance Supervisor containing the current list, total solvent usage records of the solvents and a summary of the inspections records during the reporting period showing problems found and corrective actions taken.

[County Rule 210 § 302.1.e.(1)]

## 26. PERMIT CONDITIONS FOR ARCHITECTURAL COATINGS:

- A. Operational Limitations: The Permittee shall not apply any architectural coating manufactured after July 13, 1988, which is recommended for use as a bituminous pavement sealer unless it is an emulsion type coating.

[County Rule 335 §301, SIP Rule 335 §301]

The Permittee shall not apply any non-flat architectural coating manufactured after July 13, 1990, which contains more than 2.1 lbs (250 g/l) of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to specialty coatings.

The Permittee shall not apply any architectural coating that exceeds the following limits. Limits are expressed in pounds of VOC per gallon of coating as applied, excluding water and any colorant added to tint bases.

[County Rule 335 §303,305 and SIP Rule 335 §303,305]

### SPECIALTY COATINGS:

<u>COATING</u>	(lb/gal)
Concrete Curing Compounds	2.9
Dry Fog Coating	
Flat	3.5
Non-flat	3.3
Enamel Undercoaters	2.9
General Primers, Sealers and Undercoaters	2.9
Industrial Maintenance Primers and Topcoats	
Alkyds	3.5
Catalyzed Epoxy	3.5
Bituminous Coating Materials	3.5
Inorganic Polymers	3.5
Vinyl Chloride Polymers	3.5
Chlorinated Rubbers	3.5

Acrylic Polymers	3.5
Urethane Polymer	3.5
Silicones	3.5
Unique Vehicles	3.5
Lacquers	5.7
Opaque Stains	2.9
Wood Preservatives	2.9
Quick Dry Enamels	3.3
Roof Coatings	2.5
Semi-transparent Stains	2.9
Semi-transparent and Clear Wood Preservatives	2.9
Opaque Wood Preservatives	2.9
Specialty Flat Products	3.3
Specialty Primers, Sealers and Undercoaters	2.9
Stains, All	2.9
Traffic Coatings	
Applied to Public Streets and Highways	2.1
Applied to other Surfaces	2.1
Black Traffic Coatings	2.1
Varnishes	2.9
Waterproof Mastic Coating	2.5
Waterproof Sealers	3.3
Wood Preservatives Except Below Ground	2.9

The Permittee shall not apply any flat architectural coating which contains more than 2.1 lbs (250 g/l) of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to specialty coatings.

[County Rule 335 §304, SIP Rule 335 §304]

The following coatings are exempt from the architectural coatings requirements specified in the permit conditions above:

- 1) Architectural coatings supplied in containers having capacities of one quart or less.
- 2) Architectural coatings recommended by the manufacturer for use solely as one or more of the following:
  - a) Below ground wood preservative coatings.
  - b) Bond breakers.
  - c) Fire retardant coatings.
  - d) Graphic arts coatings (sign paints)
  - e) Mastic texture coatings.
  - f) Metallic pigmented coatings.
  - g) Multi-colored paints.
  - h) Quick-dry primers, sealers and undercoaters.
  - i) Shellacs.
  - j) Swimming pool paints.
  - k) Tile-like glaze coatings.

[County Rule 335 §§306, 307 and SIP Rule 335 §§306, 307]

- B. Recordkeeping/Monitoring: The Permittee shall keep the material list of all coatings used. The material list should contain the name of each coating, short description of the material, pounds of VOCs per gallon of coating, excluding water and colorant added to tint bases

and amount used. If the coating is exempt from the volatile organic compounds content requirements, the justification for the determination shall be documented and kept on file.

[County Rule 210 §302.1.c(2)]

- C. Reporting: The Permittee shall file a semiannual compliance report no later than April 30th, and shall report the compliance status of the source during the period between October<sup>1</sup>st of the previous year and March<sup>31</sup>st of the current year. The second certification shall be submitted no later than October<sup>31</sup>st and shall report the compliance status of the source during the period between April<sup>1</sup>st and September<sup>30</sup>th of the current year. The initial compliance report shall reflect the compliance status of the source beginning with the date of the permit issuance. Compliance report shall include material list and a list of the coatings which are exempt from the volatile organic compounds content requirements.

[County Rule 210 §302.1.d.]

- D. Testing: If required by the Control Officer testing procedures to determine compliance with prescribed VOC limits shall be consistent with Reference Methods 24 and 24A in the Arizona Testing Manual for Air Pollutant Emissions.

[County Rule 335 §500 and SIP Rule 335 §500]

**27. PERMIT CONDITIONS FOR NON-RESALE GASOLINE STORAGE TANKS WITH CAPACITY GREATER THAN 250 GALLONS AND GASOLINE THROUGHPUT LESS THAN 120,000 GALLONS PER YEAR:**

- A. Operational Limitations: The Permittee shall equip and operate any gasoline storage tanks according to the applicable requirements of the County Rule 353, SIP Rule 33.3 and SIP Rule 353.
- B. Record Keeping/Monitoring: The Permittee shall maintain records as follows:
- 1) The total amount of gasoline received each month shall be recorded by the end of the following month.
  - 2) The owner or operator of a gasoline dispensing facility shall cause weekly records of fill tube, vapor valve and spill containment inspection to be kept. The findings of such weekly inspections shall be permanently entered in a record or log book by the end of Saturday of the following week.
  - 3) Records of the past 12 months shall be in a readily accessible location and must be made available to the Control Officer without delay upon verbal or written request.

[County Rule 353 § 502 and SIP Rule 353 § 502]

- C. Reporting: The Permittee shall file a semiannual compliance report starting from this permit issuance date within 30-days of the end of the 6-month period to the Division with attention to: Large Sources Compliance Supervisor containing the following information:
- 1) Summary of the monthly and 12-month rolling total records of the gasoline delivered;
  - 2) Records of the inspections of the submerged fill pipe required by these Permit Conditions showing problems found and corrective actions taken.

[Rule 210 § 302.1.e.(1), SIP Rule 210 § 302.1.e.(1)]

## 28. PERMIT CONDITIONS FOR DUST GENERATING OPERATIONS:

### A. Dust Control Plan Required:

- 1) The Permittee shall submit a Dust Control Plan and obtain the Control Officer's approval of the Dust Control Plan, before commencing any routine dust generating operation or conducting earthmoving operations which would equal or exceed 0.1 acre. The Dust Control Plan shall include all the information contained in County Rule 310, Section 304 and shall describe all control measures to be implemented before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays. Any control measure that is implemented must meet the applicable standards described in these permit conditions, as determined by the corresponding test method(s), as applicable, and must meet other applicable standards set forth in County Rule 310.

[County Rule 310 §303 and 303.3(b)] [SIP Rule 310 §303 and 303.3(b)]

- 2) A Dust Control Plan shall not be required:

- a) To play on a ballfield and/or for routine landscape maintenance that does not include grading, trenching, nor any other mechanized surface disturbing activities performed to establish initial landscapes or to redesign existing landscapes.
- b) To establish initial landscapes or to redesign existing landscapes of legally-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, and county regional parks, hiking paths, horse trails, bicycle paths, ballfields, playgrounds at camp sites, and camp sites, which are used exclusively for purposes other than travel by motor vehicles.

[County Rule 310 § 303.4] [SIP Rule 310 § 303.4]

- 3) Failure to comply with the provisions of an approved Dust Control Plan is deemed to be a violation of this Permit. Regardless of whether an approved Dust Control Plan is in place or not, the Permittee is still subject to all requirements of these permit conditions at all times. In addition, the Permittee with an approved Dust Control Plan is still subject to all of the requirements of these permit conditions, even if the Permittee is complying with the approved Dust Control Plan.

[County Rule 310 §306] [SIP Rule 310 §306]

- 4) If the Control Officer determines that an approved Dust Control Plan has been followed, yet fugitive dust emissions from any given fugitive dust source still exceed limits from this permit condition, then the Permittee shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer's written notice, unless such time period is extended by the Control Officer, upon request, for good cause. During the time that the Permittee is preparing revisions to the approved Dust Control Plan, the Permittee must still comply with all requirements of these permit conditions.

[County Rule 310 §305] [SIP Rule 310 §305]

- 5) Dust Control Plan:

The Dust Control Plan shall, at a minimum, contain all the following information:

- a) Names, address(es), and phone numbers of person(s) responsible for the submittal, and implementation of the Dust Control Plan and responsible for the dust generating operation.
- b) A drawing, on at least 8 1/2" x 11" paper, which shows:
  - (1) Entire project site boundaries.
  - (2) Acres to be disturbed with linear dimensions;
  - (3) Nearest public roads;
  - (4) North arrow;
  - (5) Planned exit locations onto paved public roadways.
- c) Control measures or combination thereof to be applied to all actual and potential fugitive dust sources, before, after, and while conducting any dust generating operations, including during weekends, after work hours, and on holidays.
  - (1) At least one primary control measure and one contingency control measure must be identified from Table 11 (located at the end of this Permit Condition) of this Permit Condition for all fugitive dust sources. Should any primary control measure(s) prove ineffective, the Permittee shall immediately implement the contingency control measure(s), which may obviate the requirement of submitting a revised Dust Control Plan.
  - (2) Alternatively, a control measure(s) that is not in Table 11 of this rule may be chosen, provided that such control measure(s) is implemented to comply with the standard(s) described in these permit conditions, as determined by the corresponding test method(s), as applicable, and must meet other applicable standard(s) set forth in this rule.
  - (3) If complying with Stabilization Requirements For Fugitive Dust Sources-Unpaved Haul/Access Roads, must include the number of vehicles traveled on the unpaved haul/access roads (i.e., number of employee vehicles, earthmoving equipment, haul trucks, and water trucks).
- d) Dust suppressants to be applied, including product specifications or label instructions for approved usage:
  - (1) Method, frequency, and intensity of application.
  - (2) Type, number, and capacity of application equipment.
  - (3) Information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application.
- e) Specific surface treatment(s) and/or control measures utilized to control material trackout and sedimentation where unpaved and/or access points join paved public roadways.

[County Rule 310 § 304] [SIP Rule 310 § 304]

**B. Allowable Emissions:**

The Permittee shall not allow emissions to exceed 20% opacity:

- 1) Wind Event: Exceedances of the opacity limit that occur due to a wind event shall constitute a violation of the opacity limit. However, it shall be an affirmative defense in an enforcement action if the Permittee demonstrates all of the following conditions:
  - a) All control measures required were followed and one or more of the control measures in Table 12 (located at the end of this Permit Condition) were applied and maintained;
  - b) The 20% opacity exceedance could not have been prevented by better application, implementation, operation, or maintenance of control measures;
  - c) The Permittee compiled and retained records, in accordance with Recordkeeping requirements of this permit, and

- d) The occurrence of a wind event on the day(s) in question is documented by records. The occurrence of a wind event must be determined by the nearest Maricopa County Environmental Services Department Air Quality Division monitoring station, from any other certified meteorological station, or by a wind instrument that is calibrated according to manufacturer's standards and that is located at the site being checked.
- 2) Emergency Maintenance Of Flood Control Channels and Water Retention Basins: No opacity limitation shall apply to emergency maintenance of flood control channels and water retention basins, provided that control measures are implemented.  
[County Rule 310 § 301] [SIP Rule 310 § 301]

C. Operational Limitations:

Fugitive Dust Sources:

- 1) The owner and/or operator of any unpaved parking lot shall not allow visible fugitive dust emissions to exceed 20% opacity, and either:
  - a) Shall not allow silt loading equal to or greater than 0.33 oz/ft<sup>2</sup>; or
  - b) Shall not allow the silt content to exceed 8%.
- 2) Unpaved Haul/Access Road: The Permittee:
  - a) Shall not allow visible fugitive dust emissions to exceed 20% opacity, and either:
    - (1) Shall not allow silt loading equal to or greater than 0.33 oz/ft<sup>2</sup>; or
    - (2) Shall not allow the silt content to exceed 6%.
  - b) Shall, as an alternative to meeting the stabilization requirements for an unpaved haul/access road, limit vehicle trips to no more than 20 per day and limit vehicle speeds to no more than 15 miles per hour. If complying with these permit conditions must include, in a Dust Control Plan, the number of vehicles traveled on the unpaved haul/access roads (i.e., number of employee vehicles, earthmoving equipment, haul trucks, and water trucks).
- 3) Open Area And Vacant Lot Or Disturbed Surface Area: The Permittee on any disturbed surface area on which no activity is occurring (whether at a work site that is under construction, at a work site that is temporarily or permanently inactive) shall meet at least 1 of the standards described below, as applicable. The Permittee shall be considered in violation of this permit if such inactive disturbed surface area is not maintained in a manner that meets at least 1 of the standards described below, as applicable.
  - a) Maintain a visible crust; or
  - b) Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher; or
  - c) Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%; or
  - d) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%; or
  - e) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements; or

- f) Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or
- g) Comply with a standard of an alternative test method, upon obtaining the written approval from the Control Officer and the Administrator of the Environmental Protection Agency (EPA).

[County Rule 310 § 302] [SIP Rule 310 § 302]

#### Control Measures:

The Permittee shall implement control measures before, after, and while conducting any dust generating operation, including during after work hours, weekends, and holidays. Any control measure that is implemented must meet the applicable standards described in these permit conditions, as determined by the corresponding test method(s), as applicable, and must meet other applicable standards set forth in County Rule 310. Failure to comply with the Work Practices of this permit condition, as applicable, and/or of an approved Dust Control Plan is deemed a violation of these permit conditions. Regardless of whether an approved Dust Control Plan is in place or not, the Permittee is still subject to all requirements of these permit conditions at all times. In addition, the Permittee with an approved Dust Control Plan is still subject to all of the requirements of these permit conditions, even if the Permittee is complying with the approved Dust Control Plan.

[County Rule 310 § 306] [SIP Rule 310 § 306]

#### Project Information Sign:

The Permittee shall erect a project information sign at the main entrance, that is visible to the public, of all sites with an Earthmoving Permit that are five acres or larger. Such sign shall be a minimum of four feet long by four feet wide, have a white background, have black block lettering which is at least four inches high, and shall contain the following information:

- 1) Project name; and
- 2) Name and phone number of person(s) responsible for conducting the project; and
- 3) Text stating: "Complaints? Call Maricopa County Environmental Services Department (insert the current/accurate phone number for the complaint phone line)."

[County Rule 310 § 307] [SIP Rule 310 § 307]

#### Work Practices:

When engaged in the following specific activities, the Permittee shall comply with the following work practices in addition to implementing, as applicable, the control measures described in Table 11 of this permit condition. Such work practices shall be implemented to meet the standards described in this permit condition.

- 1) Bulk Material Hauling Off-Site Onto Paved Public Roadways:
  - a) Load all haul trucks such that the freeboard is not less than three inches; and
  - b) Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
  - c) Cover all haul trucks with a tarp or other suitable closure; and
  - d) Before the empty haul truck leaves the site, clean the interior of the cargo compartment or cover the cargo compartment.

- 2) Bulk Material Hauling On-Site Within The Boundaries Of The Work Site: When crossing a public roadway, upon which the public is allowed to travel while construction is underway:
  - a) Load all haul trucks such that the freeboard is not less than three inches; and
  - b) Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
  - c) Install a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse such work site.
- 3) Spillage, Carry-Out, Erosion And/Or Trackout
  - a) Install a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse such work site at all exit onto a paved public roadway:
    - (1) From all work sites five acres or larger.
    - (2) From all work sites where 100 cubic yards of bulk materials are hauled on-site and/or off-site per day.
  - b) Cleanup spillage, carry-out, erosion and/or trackout on the following time-schedule:
    - (1) Immediately, when spillage, carry-out, and/or trackout extends a cumulative distance of 50 linear feet or more; or
    - (2) At the end of the work day, when spillage, carry-out, erosion and/or trackout are other than the spillage, carry-out, erosion and/or trackout described above.
- 4) Unpaved Haul/Access Roads: Implement 1 or more control measure(s), as described in Table 11 of this permit condition, before engaging in the use of or in the maintenance of any such unpaved haul/access roads; or
- 5) Easements, Rights-Of-Way, And Access Roads For Utilities (Electricity, Natural Gas, Oil, Water And Gas Transmission):
  - a) Inside the PM<sub>10</sub> nonattainment area, restrict vehicular speeds to 15 miles per hour and vehicular trips to no more than 20 per day; or
  - b) Implement control measures, as described in Table 11 of this permit conditions
- 6) Open Storage Piles: An open storage pile is any accumulation of bulk material with a 5% or greater silt content which in any one point attains a height of three feet and covers a total surface area of 150 square feet or more. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-96a or other equivalent method approved in writing by the Control Officer and the Administrator of EPA, that the silt content is less than 5%.
  - a) During stacking, loading, and unloading operations, apply water, as necessary to maintain compliance with this permit condition; and
  - b) When not conducting stacking, loading, and unloading operations, comply with one of the following work practices:
    - (1) Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings; or
    - (2) Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98, or other equivalent as approved by the Control Officer and the Administrator of EPA. For areas which have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method 1557-91(1998) or other equivalent approved by the Control



Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content; or

- (3) Meet one of the stabilization requirements described in this permit condition; or
- (4) Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%.

- 7) Earthmoving Operations On Disturbed Surface Areas 1 Acre Or Larger: If water is the chosen control measure, operate water application system (e.g., water truck) while conducting earthmoving operations on disturbed surface areas 1 acre or larger.
- 8) Weed Abatement By Discing Or Blading:
  - a) Apply water before weed abatement by discing or blading occurs; and
  - b) Apply water while weed abatement by discing or blading is occurring; and
  - c) Pave, apply gravel, apply water, or apply a suitable dust suppressant, in compliance with these permit conditions, after weed abatement by discing or blading occurs; or
  - d) Establish vegetative ground cover in sufficient quantity, in compliance with these permit conditions, after weed abatement by discing or blading occurs.

[County Rule 310 § 308] [SIP Rule 310 § 308]

Dust control plan posting:

The Permittee shall post a copy of the approved Dust Control Plan in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or shall otherwise keep a copy of the approved Dust Control Plan available on-site at all times.

[County Rule 310 § 401] [SIP Rule 310 § 401]

#### D. Recordkeeping/Monitoring:

The Permittee shall keep a daily written log recording the actual application or implementation of the control measures delineated in the approved Dust Control Plan. The log or the records and supporting documentation shall be made available to the Control Officer within 24 hours from written or verbal request.

Copies of approved Dust Control Plans, control measures implementation records, and all supporting documentation shall be retained at least five years from the date such records are established.

#### E. Testing:

- 1) Dust Generating Operations: Opacity observations of a source engaging in dust generating operations shall be conducted in accordance with Appendix C, Section 3 (Visual Determination Of Opacity Of Emissions From Sources For Time-Averaged Regulations) of County Rule 310, except opacity observations for intermittent sources

shall require 12 rather than 24 consecutive readings at 15-second intervals for the averaging time.

- 2) Unpaved Parking Lot: Opacity observations of any unpaved parking lot shall be conducted in accordance with Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of County Rule 310.
- 3) Unpaved Haul/Access Road: Opacity observations of any unpaved haul/access road (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall be conducted in accordance with Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of County Rule 310.

[County Rule 310 § 501.1] [SIP Rule 310 § 501.1]

- 4) Stabilization Observations:
  - a) Unpaved Parking Lot: Stabilization observations for unpaved parking lots shall be conducted in accordance with Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of County Rule 310. When more than 1 test method is permitted for a determination, an exceedance of the limits established in this rule determined by any of the applicable test methods constitutes a violation of these permit conditions.
  - b) Unpaved Haul/Access Road: Stabilization observations for unpaved haul/access roads (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall be conducted in accordance with Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of County Rule 310. When more than 1 test method is permitted for a determination, an exceedance of the limits established in this rule determined by any of the applicable test methods constitutes a violation of these Permit conditions.
  - c) Open Area And Vacant Lot Or Disturbed Surface Area: Stabilization observations for an open area and vacant lot or any disturbed surface area on which no activity is occurring (whether at a work site that is under construction, at a work site that is temporarily or permanently inactive) shall be conducted in accordance with at least one of the techniques described below, as applicable. The Permittee shall be considered in violation of this permit if such inactive disturbed surface area is not maintained in a manner that meets at least 1 of the standards described in County Rule 310 subsection 302.3, as applicable.
    - (1) Appendix C, Section 2.3 (Test Methods For Stabilization-Visible Crust Determination) (The Drop Ball/Steel Ball Test) of these rules for a visible crust; or
    - (2) Appendix C, Section 2.4 (Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)) (Sieving Field Procedure) of these rules for threshold friction velocity (TFV) corrected for non-erodible elements of 100 cm/second or higher; or
    - (3) Appendix C, Section 2.5 (Test Methods For Stabilization-Determination Of Flat Vegetative Cover) of these rules for flat vegetation cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%; or

- (4) Appendix C, Section 2.6 (Test Methods For Stabilization-Determination Of Standing Vegetative Cover) of these rules for standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%; or
- (5) Appendix C, Section 2.6 (Test Methods For Stabilization-Determination Of Standing Vegetative Cover) of these rules for standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements; or
- (6) Appendix C, Section 2.7 (Test Methods For Stabilization-Rock Test Method) of these rules for a percent cover that is equal to or greater than 10%, for non-erodible elements; or
- (7) An alternative test method approved in writing by the Control Officer and the Administrator of the EPA.

[County Rule 310 § 501.2] [SIP Rule 310 § 501.2]

- 5) The test methods listed in this permit condition are adopted by reference. These adoptions by reference include no future editions or amendments. Copies of the test methods referenced in this section are available at the Maricopa County Environmental Services Department, 1001 North Central Avenue, Phoenix, AZ, 85004-1942.
  - a) ASTM Method C136-96a ("Standard Test Method For Sieve Analysis Of Fine And Coarse Aggregates").
  - b) ASTM Method D2216-98 ("Standard Test Method For Laboratory Determination Of Water (Moisture) Content Of Soil And Rock By Mass").
  - c) ASTM Method 1557-91(1998) ("Test Method For Laboratory Compaction Characteristics Of Soil Using Modified Effort (56,000 ft-lb/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>)).

[County Rule 310 § 504] [SIP Rule 310 § 504]

**TABLE 11**

<b>SOURCE TYPE AND CONTROL MEASURES</b>	
<b>Vehicle Use In Open Areas And Vacant Lots:</b>	
1A	Restrict trespass by installing signs.
2A	Install physical barriers such as curbs, fences, gates, posts, signs, shrubs, and/or trees to prevent access to the area.
<b>Unpaved Parking Lots:</b>	
1B	Pave.
2B	Apply and maintain gravel, recycled asphalt, or other suitable material, in compliance with subsection 302.1 of this rule.
3B	Apply a suitable dust suppressant, in compliance with subsection 302.1 of this rule.
<b>Unpaved Haul/Access Roads:</b> (The control measures listed below (1C-5C) are required work practices, per subsection 308.4 of this rule.)	
1C	Limit vehicle speed to 15 miles per hour or less and limit vehicular trips to no more than 20 per day.
2C	Apply water, so that the surface is visibly moist and subsection 302.2 of this rule is met.
3C	Pave.
4C	Apply and maintain gravel, recycled asphalt, or other suitable material, in compliance with subsection 302.2 of this rule.
5C	Apply a suitable dust suppressant, in compliance with subsection 302.2 of this rule.

**Disturbed Surface Areas:**

**Pre-Activity:**

- 1D Pre-water site to the depth of cuts.
- 2D Phase work to reduce the amount of disturbed surface areas at any one time.

**During Dust Generating Operations:**

- 3D Apply water or other suitable dust suppressant, in compliance with Section 301 of this rule.
- 4D Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent as approved by the Control Officer and the Administrator of EPA. For areas which have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91(1998) or other equivalent approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content.
- 5D Construct fences or 3 foot - 5 foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas that reduce the amount of wind blown material leaving a site. If constructing fences or wind barriers, must also implement 3D or 4D above.

**Temporary Stabilization During Weekends, After Work Hours, And On Holidays:**

- 6D Apply a suitable dust suppressant, in compliance with subsection 302.3 of this rule.
- 7D Establish vegetative ground cover in sufficient quantity, in compliance with subsection 302.3 of this rule.
- 8D Restrict vehicular access to the area, in addition to either of the control measures described in 6D and 7D above.

**Permanent Stabilization (Required Within 8 Months Of Ceasing Dust Generating Operations):**

- 9D Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions, in compliance with subsection 302.3 of this rule.
- 10D Pave, apply gravel, or apply a suitable dust suppressant, in compliance with subsection 302.3 of this rule.
- 11D Establish vegetative ground cover in sufficient quantity, in compliance with subsection 302.3 of this rule.

**Open Areas And Vacant Lots:**

- 1E Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions.
- 2E Pave, apply gravel, or apply a suitable dust suppressant, in compliance with subsection 302.3 of this rule.
- 3E Establish vegetative ground cover in sufficient quantity, in compliance with subsection 302.3 of this rule.

**Control measures 1F – 1M below are required work practices and/or methods designed to meet the work practices, per Section 308 (Work Practices) of this rule.**

**Bulk Material Handling Operations And Open Storage Piles:**

**During Stacking, Loading, And Unloading Operations:**

- 1F Apply water as necessary, to maintain compliance with Section 301 of this rule; and

**When Not Conducting Stacking, Loading, And Unloading Operations:**

- 2F Cover open storage piles with tarps, plastic, or other material to prevent wind from

- removing the coverings; or
- 3F Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98, or other equivalent as approved by the Control Officer and the Administrator of EPA. For areas which have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91(1998) or other equivalent approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content; or

4F Meet the stabilization requirements described in subsection 302.3 of this rule; or

- 5F Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%. If implementing 5F, must also implement 3F or 4F above.

**Bulk Material Hauling/Transporting:**

**When On-Site Hauling/Transporting Within The Boundaries Of The Work Site When Crossing A Public Roadway Upon Which The Public Is Allowed To Travel While Construction Is Underway:**

- 1G Load all haul trucks such that the freeboard is not less than 3 inches when crossing a public roadway upon which the public is allowed to travel while construction is underway; and
- 2G Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
- 3G Install a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse such work site. Examples of trackout control devices are described in this Table 11 (Trackout 1J, 2J, 3J); and

**When On-Site Hauling/Transporting Within The Boundaries Of The Work Site But Not Crossing A Public Roadway Upon Which The Public Is Allowed To Travel While Construction Is Underway:**

- 4G Limit vehicular speeds to 15 miles per hour or less while traveling on the work site; or
- 5G Apply water to the top of the load such that the 20% opacity standard, as described in Section 301 of this rule, is not exceeded, or cover haul trucks with a tarp or other suitable closure.

**Off-Site Hauling/Transporting Onto Paved Public Roadways:**

- 6G Cover haul trucks with a tarp or other suitable closure; and
- 7G Load all haul trucks such that the freeboard is not less than 3 inches; and
- 8G Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
- 9G Before the empty haul truck leaves the site, clean the interior of the cargo compartment or cover the cargo compartment.

**Cleanup Of Spillage, Carry Out, Erosion, And/Or Trackout:**

- 1H Operate a street sweeper or wet broom with sufficient water, if applicable, at the speed recommended by the manufacturer and at the frequency(ies) described in subsection 308.3 of this rule; or
- 2H Manually sweep-up deposits.

**Trackout:**

- 1J Install a grizzly or wheel wash system at all access points.

2J	At all access points, install a gravel pad at least 30 feet wide, 50 feet long, and 6 inches deep.
3J	Pave starting from the point of intersection with a paved public roadway and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
<b>Weed Abatement By Discing Or Blading:</b>	
1K	Pre-water site and implement 3K or 4K below.
2K	Apply water while weed abatement by discing or blading is occurring and implement 3K or 4K below.
3K	Pave, apply gravel, apply water, or apply a suitable dust suppressant, in compliance with subsection 302.3 of this rule, after weed abatement by discing or blading occurs; or
4K	Establish vegetative ground cover in sufficient quantity, in compliance with subsection 302.3 of this rule, after weed abatement by discing or blading occurs.
<b>Easements, Rights-Of-Way, And Access Roads For Utilities (Electricity, Natural Gas, Oil, Water, And Gas Transmission) Associated With Sources That Have A Non-Title V Permit, A Title V Permit, And/Or A General Permit Under These Rules:</b>	
1L	Inside the PM <sub>10</sub> nonattainment area, restrict vehicular speeds to 15 miles per hour and vehicular trips to no more than 20 per day; or
2L	Outside the PM <sub>10</sub> nonattainment area, restrict vehicular trips to no more than 20 per day; or
3L	Implement control measures, as described in this Table 11 (Unpaved Haul/Access Roads-1C through 5C).
<b>Earthmoving Operations On Disturbed Surface Areas 1 Acre Or Larger:</b>	
1M	If water is the chosen control measure, operate water application system (e.g., water truck), while conducting earthmoving operations on disturbed surface areas 1 acre or larger.

TABLE 12

SOURCE TYPE AND WIND EVENT CONTROL MEASURES	
<b>Dust Generating Operations:</b>	
1A	Cease dust generating operations for the duration of the condition/situation/event when the 60-minute average wind speed is greater than 25 miles per hour. If dust generating operations are ceased for the remainder of the work day, stabilization measures must be implemented; or
2A	Apply water or other suitable dust suppressant twice [once] per hour, in compliance with Section 301 of this rule; or
3A	Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent as approved by the Control Officer and the Administrator of EPA. For areas which have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91(1998) or other equivalent approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content; or
4A	Construct fences or 3 foot - 5 foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas that reduce the amount of wind-blown material leaving a site. If implementing 4A, must also implement 2A or 3A above.
<b>Temporary Disturbed Surface Areas (After Work Hours, Weekends, Holidays):</b>	
1B	Uniformly apply and maintain surface gravel or dust suppressants, in compliance with subsection 302.3 of this rule; or
2B	Apply water to all disturbed surface areas three times per day. If there is any evidence of wind-blown dust, increase watering frequency to a minimum of four times per day; or
3B	Apply water on open storage piles twice [once] per hour, in compliance with subsection

	302.3 of this rule; or
4B	Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings; or
5B	Utilize any combination of the control measures described in 1B, 2B, 3B, and 4B above, such that, in total, these control measures apply to all disturbed surface areas.

## 29. PERMIT CONDITIONS FOR ABRASIVE BLASTING WITH OR WITHOUT BAGHOUSE:

- A. Allowable Emissions: The Permittee shall not discharge into the atmosphere from any abrasive blasting any air contaminant for a period or periods aggregating more than three minutes in any one-hour period which is a shade or density darker than 20 percent opacity.  
 [County Rule 312 §301] [locally enforceable only]
- B. Operational Limitations: The Permittee shall utilize at least one of the following control measures for all abrasive blasting:
- 1) Confined blasting,
  - 2) Wet abrasive blasting,
  - 3) Hydroblasting,
  - 4) The use of a CARB certified abrasive blasting media is a permissible control measure for use in dry, unconfined blasting operations provided that the following conditions are met:
    - a) Only an abrasive(s) on the most recent CARB certification list may used in the abrasive blasting process.
    - b) Blasting is performed only on a metal substrate.
    - c) The abrasive blasting medium is used only once.
    - d) The existing paint on the surface to be abraded is lead free (i.e. lead content < 0.1%).
    - e) Opacity limits of the County Rule 312 are adhered to.
    - f) The object to be blasted exceeds 8 feet in any dimension or the surface to be blasted is situated at its permanent location.
    - g) Blasting is not performed at ground level on a surface which may be disturbed by the process and contribute to particulate emissions (e.g. unpaved ground).
- [County Rule 312 §302.4][locally enforceable only]

The Permittee shall not forcibly exhaust abrasive blasting equipment to the outside of the building unless the exhaust is vented through a baghouse. The baghouse shall operate within operating parameters specified in Operation and Maintenance (O&M) Plan most recently approved in writing by the Control Officer.

[County Rule 312 §302] [locally enforceable only]

- C. Record Keeping: The Permittee shall keep records of the following:
- 1) The dates when abrasive blasting activities are conducted and the type of abrasive material used.
  - 2) Monthly records of the type and amount of abrasive blasting media used.
  - 3) Monthly opacity readings of visible emissions for each month when abrasive blasting is conducted.
  - 4) Opacity reading during the external blasting.
  - 5) Every inspection or preventive maintenance performed on the baghouse according to the Operation and Maintenance Plan. The Permittee shall maintain records of the key

system operating parameters required by the O&M Plan. The Permittee shall keep a log demonstrating that any training requirements in the approved O&M Plan are being met.

[County Rules 312 and 210 §302.1.d] [locally enforceable only]

- D. Monitoring/Testing: The Permittee shall monitor compliance with the opacity requirements of the permit conditions for abrasive blasting by observations of visible emissions conducted in accordance with EPA Reference Method 9 each time the external blasting is performed and each month the abrasive blasting with baghouse is performed for more than 10 hours.

Visible emission evaluation of abrasive blasting operations shall be conducted in accordance with the following provisions:

- 1) Emissions from unconfined blasting shall be read at the densest point of the emission after a major portion of the spent abrasives has fallen out, at a point not less than five feet nor more than 25 feet from the impact surface from any single abrasive blasting nozzle.
- 2) Emissions from unconfined blasting employing multiple nozzles shall be judged as single source unless it can be demonstrated by the Permittee that each nozzle, evaluated separately, meets the emission standards of these Permit Conditions.
- 3) Emissions from confined blasting shall be read at the densest point after the air contaminant leaves the enclosure.

[County Rules 210 § 302.1.c and 312 §501] [locally enforceable only]

- E. Reporting: The Permittee shall file a semiannual compliance report no later than April 30<sup>th</sup>, and shall report the compliance status of the source during the period between October 1<sup>st</sup> of the previous year and March 31<sup>st</sup> of the current year. The second certification shall be submitted no later than October 31<sup>st</sup> and shall report the compliance status of the source during the period between April 1<sup>st</sup> and September 30<sup>th</sup> of the current year. The initial compliance report shall reflect the compliance status of the source beginning with the date of the permit issuance. Compliance report shall include a summary of the opacity readings and date of such readings during external blasting and blasting with baghouse, control measures utilized for abrasive blasting and dates on which any blasting was performed.

[County Rules 312 and 210 § 302.1.e.(1)] [locally enforceable only]

### **30. PERMIT CONDITIONS FOR WIPE CLEANING:**

- A. Operational Limitations: The Permittee shall conform to the following operating requirements:

- 1) All solvent storage, including the storage of waste solvent and waste solvent residues, shall at all times be in closed leak free containers which are legibly labeled with their contents and that are opened only when adding or removing material. Rags used for wipe cleaning shall be stored in closed containers when not in use.

[County Rule 331 §301.1] [SIP Rule 331 §306.3] [SIP Rule 34C.1.(c)]

- 2) Do not dispose of any solvent, including waste solvent, in such a manner as will cause or allow its evaporation into the atmosphere.

[SIP Rule 331 §306.4] [SIP Rule 34K]



B. Monitoring/Recordkeeping: The Permittee shall:

- 1) Maintain a current list of solvents; state the VOC content of each in pounds per gallons or grams per liter. The VOC content of solvents and any liquids used as cleaning or degreasing agents shall be stated with water and non-precursors included.  
[County Rule 331 §501.1]
- 2) Maintain monthly records showing the type and amount of each make up solvent added and any other VOC-containing materials used.  
[County Rule 331 §501.2(a)], [SIP Rule 331 §501]
- 3) Monthly visually inspect the facility to ensure that operational limitations of Permit Condition 31.A(1) and (2) are being met.  
[County Rule 210 §302.1.c]
- 4) Records of solvents disposal/recovery shall be kept in accordance with hazardous waste disposal statutes.  
[SIP Rule 331 Section 306.4]

- C. Reporting: The Permittee shall file a semiannual compliance report starting from this permit issuance date within 30-days of the end of the 6-month period to the Division with attention to Large Sources Compliance Supervisor containing the current list and summary of usage records of the solvents.  
[County Rule 210 §302.1.e.(1)] [locally enforceable only]

**31. PERMIT CONDITIONS FOR CUTBACK AND EMULSIFIED ASPHALT:**

A. Operational Limitations:

The Permittee shall not use or apply the following materials for paving, construction, or maintenance of highways, streets, driveways, parking lots or for any other use to which County Rule 340 §300 and SIP Rule 340 §300 applies:

- 1) Rapid cure cutback asphalt.
- 2) Any cutback asphalt material, road oils, or tar which contains more than 0.5 percent by volume VOCs which evaporate at 500°F (260°C) or less using ASTM Test Method D 402-76.
- 3) Any emulsified asphalt or emulsified tar containing more than 3.0 percent by volume VOCs which evaporate at 500°F (260°C) or less as determined by ASTM Method D 244-89.

[County Rule 340 §301 and SIP Rule 340 §301]

The Permittee shall not store for use any emulsified or cutback asphalt product which contains more than 0.5 percent by volume solvent-VOC unless such material lot includes a designation of solvent-VOC content on data sheet(s) expressed in percent solvent-VOC by volume.

[County Rule 340 §303 and SIP Rule 340 §303]

- B. Exemptions: The provisions of these Permit Conditions shall not apply to asphalt that is used solely as a penetrating prime coat and which is not a rapid cure cutback asphalt. Penetrating prime coats do not include dust palliatives or tack coats.

[County Rule 340 §302.1 and SIP Rule 340 §302.1]

The Permittee may use up to 3.0 percent solvent-VOC by volume for batches of asphalt rubber which cannot meet paving specifications by adding heat alone only if request is made to the Control Officer, who shall evaluate such requests on a case-by-case basis. The Permittee shall keep complete records and full information is supplied including savings realized by using discarded tires. The Permittee shall not exceed 1100 lbs (500 kg) usage of solvent-VOC in asphalt rubber in a calendar year unless the Permittee can demonstrate that in the previous 12 months no solvent-VOC has been added to at least 95 percent by weight of all the asphalt rubber binder made by the Permittee or caused to be made for the Permittee. This Permit Condition does not apply to batches which yield 0.5 percent or less solvent-VOC evaporated using the test in County Rule 340 § 502.1.

[County Rule 340 §302.3 and SIP Rule 340 §302.3]

- C. Record Keeping: The Permittee shall keep daily records of the amount and type of asphaltic/bituminous material received and used, as well as the solvent-VOC content of this material. Safety data (MSDS) or technical data sheets shall be kept available.  
[County Rule 210 §302.1.c][County Rule 340 §501 and SIP Rule 340 §501]

- D. Testing Methods: If required by the Control Officer the applicable testing procedures contained in County Rule 340 §502 and SIP Rule 340 §502 shall be used to determine compliance with these Permit Conditions.

[County Rule 340 §502 and SIP Rule 340 §502]

- E. Reporting: The Permittee shall file a semiannual compliance report starting from this permit issuance date within 30-days of the end of the 6-month period to the Division with attention to: Large Sources Compliance Supervisor containing the dates and description of any usage of cutback and emulsified asphalt.

[County Rule 210 §302.1.e.(1)] [locally enforceable only]

### **32. PERMIT CONDITIONS FOR VOLATILE ORGANIC COMPOUNDS:**

The provisions of these Permit Conditions based on Rule 330 shall not apply to the use of equipment, materials, and/or substances which meet applicable requirements and standards specified by other Permit Conditions of this Permit.

[County Rule 330 § 307.2]

- A. Operational Limitations: The Permittee shall limit emissions of Volatile Organic Compounds (VOC) resulting from the use of organic solvents or processes that emit VOC by complying with operational limitations specified in the County Rule 330.

- B. Recordkeeping: The Permittee shall maintain:

- 1) A current list of coatings, adhesives, makeup solvents, and any other VOC-containing materials; state the VOC content of each in pounds per gallon or grams per liter. VOC content shall be expressed less water and non-precursor compounds for materials which are not used for cleaning or cleanup.

[County Rule 330 § 503.1]

- 2) Monthly records of the amount of each coating; adhesive; makeup solvent; solvent used for surface preparation, for cleanup, and for the removal of materials; and any other VOC-containing material used. Identify any materials subject to the emission

- limits in Section 301 or Section 302 of County Rule 330 and keep separate totals for these materials.  
[County Rule 330 § 503.2]
- 3) Records of the type, amount, and method of disposing of VOC-containing materials on each day of disposal.  
[County Rule 330 § 503.4]
- 4) Records of the disposal/recovery of such materials. Records of hazardous waste disposal shall be kept in accordance with hazardous waste disposal statutes.  
[County Rule 330 § 306.3]
- C. Reporting: The Permittee shall file a semiannual compliance report starting from this permit issuance date within 30-days of the end of the 6-month period to the Division with attention to: Large Sources Compliance Supervisor containing the monthly records of the amount of each coating, adhesive, solvents and any other VOC-containing materials used.  
[County Rule 210 § 302.1.e.(1)]

***APPENDIX A***

***MAJOR EQUIPMENT LIST***

***Kyrene Generating Station  
Salt River Project***

## **APPENDIX A: LIST OF EQUIPMENT**

The facility consists of the following major emitting equipment:

### **NEW EQUIPMENT**

#### *Combined Cycle System K-7:*

This system consists of a General Electric (Frame 7) natural gas fired combustion turbine and a heat recovery steam generator (HRSG) equipped with a 220 mmBtu/hr (HHV) natural gas fired duct burner (referred to as Duct Burner K-7). The combustion turbine electrical output is approximately 175 megawatt (gross power) at base load conditions, 34 degrees F (excluding the steam turbine). The combustion turbine heat input is 1,606 mmBtu/hr (LHV), 1,800 mmBtu/hr (HHV) at base load, 34 degrees F. The system includes an exhaust stack with height 150 feet above plant grade and 18 feet inside diameter.

#### *Emission Control Systems for Combined Cycle System K-7:*

Selective Catalytic Reduction (SCR) nitrogen oxides emissions control system capable of treating the entire exhaust of the Combined Cycle System K-7 (including the Duct Burner) to an emission limit equal to or less than 2.5 ppm.

#### *Continuous Emission Monitoring Systems for Combined Cycle System K-7:*

Continuous emissions monitor (CEM) system that records at least oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), and either the oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>) content of the exhaust.

#### *Diesel Fueled Emergency Fire Water Pump:*

One 310 horsepower diesel fueled emergency fire water pump engine.

#### *Cooling Tower:*

One 70,000 gpm mechanically induced draft cooling tower with a total dissolved solid content of 3,500 mg/l and liquid drift of 0.0005% achieved through the use of high efficiency mist eliminators.

#### *Steam Generator:*

One 90 MW (gross) steam generator. Steam will be received from the HRSG.

## EXISTING EQUIPMENT

- Unit K-1:* Electricity generating steam unit manufactured by the Combustion Engineering, began operation in July 1952 and capable of burning natural gas, residual fuel oil and distillate fuel oil with maximum rating of 39 MW. It has a two-drum type boiler, wall fired with bent water-wall construction, utilizing six combination ring-type gas burners and mechanical atomizing oil burners. The 3600 revolutions per minute (rpm) turbine set, manufactured by General Electric ( G.E. # 93375), has 19 stages, rated at 30 MW, with inlet steam conditions of 850 pounds per square inch gauge (psig) and 900 degrees Fahrenheit. The generator, manufactured by G.E., is a 60 cycle, 3-phase, hydrogen cooled generator.
- Unit K-2:* Electricity generating steam unit manufactured by Babcock and Wilcox, began operation in June 1954 and capable of burning natural gas, residual fuel oil and distillate fuel oil with maximum rating of 80 MW. The boiler is a radiant type with a single steam drum and bent water-wall tube construction. Fuel is supplied through eight combination ring-type gas burners and return-flow mechanical atomizing oil burners. The turbine, manufactured by General Electric (G.E. #99674) is 3600 rpm, 21 stages, operating with initial steam conditions of 1250 psig and 950 degrees Fahrenheit turbine. The GE generator is a hydrogen-cooled, 3 \-phase, 60 cycle generator.
- Unit K-4:* Combustion turbine, manufactured by Westinghouse, began operation in 1972 and is rated at 81 MW maximum power output, consists of a 17-stage, high efficiency axial compressor, combustion chamber equipped with 16 combustors arranged in a circular array around the machine axis and a 4-stage reaction type turbine.
- Unit K-5, K-6:* Combustion turbine, manufactured by General Electric, began operation in 1973 and is rated at 75 MW maximum power output. Each consists of a 3-stage, high efficiency axial compressor, combustion chamber equipped with 10 combustors arranged in a circular array around the machine axis and a 4-stage reaction type turbine.

### *Continuous Emissions Monitoring System:*

OPSIS Continuous Emissions Monitor (CEM), measuring SO<sub>2</sub>, NO<sub>x</sub> and CO<sub>2</sub> emissions and an ultrasonic flow monitor. The OPSIS analyzer uses Differential Optical Absorption Spectroscopy Principle to identify and quantify different gases. Installed on Units K-1 and K-2 only. After K-7 becomes operationally available for dispatch, the Permittee may substitute alternative methods of monitoring for SO<sub>2</sub> as allowed by 40 CFR Part 75, and the opacity and NO<sub>x</sub> CEM may be shutdown.

### *Cooling towers:*

Two 19,600 gpm and 34,000 gpm Marley mechanically induced draft cooling towers, in operation since 1952 and 1954. These towers are used for emergency cooling purposes only.

*Gasoline Storage Tanks:*

One 500-gallon unleaded gasoline storage tank.

*Diesel Fueled Emergency Fire Water Pump:*

One Scania fire pump, 6-cylinder, 258 HP, stand-by, operated less than 200 hours/yr, tested once a month.

**EQUIPMENT EXEMPT FROM OBTAINING THE PERMIT:**

*Fuel Oil Storage Tanks:*

One 126,420 gallons fuel oil storage tank #1.  
One 323,652 gallons fuel oil storage tank #2.  
One 915,768 gallons fuel oil storage tank #3.  
One 5,519,094 gallons fuel oil storage tank #4.

*Solvent Cleaning Equipment:*

Unheated, non-conveyorized, cleaning equipment with an open surface area of one square meter or less and an internal volume of 350 liters or less, having an organic solvent loss of three gallons per day or less.

*Abrasive Bead Blaster:*

Self contained, enclosed blast and shot peen equipment where the total internal volume of the blast section is 50 cubic feet or less and where any venting is done via pollution control equipment.

***APPENDIX B***

***PERMIT SHIELD APPLICABLE REQUIREMENTS***

***Kyrene Generating Station  
Salt River Project***



## APPENDIX B: PERMIT SHIELD

Identified below are all federal, state and local air pollution control requirements applicable to the Permittee at the time the permit is issued. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance included in the Appendix B "Permit Shield" of this permit.

For each part, subpart, section, and subsection reference listed, all subsequent sections are assumed applicable. All other subparts or sections not listed are not applicable.

### County Requirements

#### Maricopa County Air Pollution Control Regulations

#### Regulation I                      General Provisions

<b>Rule 100</b>		<b>General Provisions and Definitions (7/26/00 revision)</b>
	§104	Circumvention
	§105	Right of Inspection of Premises
	§106	Right of Inspection of Records
	§ 301	Air Pollution Prohibited
	§ 501	Reporting Requirements
	§ 502	Data Reporting
	§ 503	Emission Statements Required as Stated in the Act
	§ 504	Retention of Records
	§ 505	Annual Emissions Inventory Report

<b>Rule 130</b>		<b>Emergency Provisions (7/26/00 revision)</b>
	§400	Administrative Requirements

<b>Rule 140</b>		<b>Excess Emissions (7/26/00 revision)</b>
	§400	Administrative Requirements
	§500	Monitoring and Records

#### Regulation II                      Permits and Fee

<b>Rule 200</b>		<b>Permit Requirements (5/20/98 revision)</b>
	§ 301	Permits Required
	§ 302	Title V Permit
	§ 305	Earth Moving Permit
	§ 306	Permit to Burn
	§ 310	Prohibition – Permit Modification
	§ 311	Permit Posting Required

<b>Rule 210</b>		<b>Title V Permit Provisions (5/20/98 revision)</b>
	§ 402	Permit Term
	§ 403	Source Changes Allowed without Permit Revisions
	§ 404	Administrative Permit Revisions
	§ 405	Minor Permit Revisions

<b>Rule 210</b>	<b>Title V Permit Provisions (5/20/98 revision)</b>
§ 406	Significant Permit Revisions
§ 407	Permit Shields

<b>Rule 241</b>	<b>Permits for New Sources and Modifications to Existing Sources (6/19/96 revision)</b>
§ 301	Best Available Control Technology (BACT) Requirements
§ 302	Reasonably Available Control Technology (RACT) Required

<b>Rule 270</b>	<b>Performance Tests (11/15/93 revision)</b>
§ 301	Performance Tests Required (approved test methods)
§301.1	Applicable Procedures and Testing Methods
§ 301.2	Opacity determined by Reference Method 9 of the AZ Testing Manual
§ 401	Performance Tests Required
§ 402	Testing Criteria
§ 403	Testing Conditions
§ 404	Notice of Testing
§ 405	Testing Facilities Provided
§ 406	Minimum Testing Required
§ 407	Compliance with the Emission Limits
§ 408	Additional Testing

### Regulation III Control of Air Contaminants

<b>Rule 300</b>	<b>Visible Emissions (8/5/94 revision)</b>
§ 301	Limitations – Opacity/General: Opacity $\leq$ 20%
§ 302	Exceptions
§ 501	Compliance Determination – Opacity
§ 502	Compliance Determination – Opacity of Visible Emissions from Intermittent Sources

<b>Rule 310</b>	<b>Open Fugitive Dust Sources (2/16/00 revision)</b>
§ 301	Opacity Limitation for Fugitive Dust Sources
§302	Stabilization Requirements for Fugitive Dust Sources
§ 303	Dust Control Plan Required
§ 304	Elements of a Dust Control Plan
§ 305	Dust Control Plan Revisions
§ 306	Control Measures
§ 308	Work Practices
§ 401	Dust Control Plan Posting
§ 501	Compliance Determination
§ 502	Recordkeeping
§ 503	Records Retention
§ 504	Test Methods Adopted by Reference
Table 1	Source Type and Control Measures
Table 2	Source Type and Wind Event Control Measures

<b>Rule 312</b>	<b>Abrasive Blasting (7/13/88 revision)</b>
§ 301	Limitations

<b>Rule 312</b>	<b>Abrasive Blasting (7/13/88 revision)</b>
§ 302	Controls Required
§ 501	Visible Emission Evaluation Techniques

<b>Rule 314</b>	<b>Open Outdoor Fires (7/13/88 revision)</b>
§ 301	Prohibition – Open Outdoor Fires
§ 302	Exemptions

<b>Rule 315</b>	<b>Spray Coating Operations (11/17/99 revision)</b>
§ 301	Controls Required
§ 302	Exemptions

<b>Rule 320</b>	<b>Odors and Gaseous Air Contaminants (7/13/88 revision)</b>
§ 300	Standards
§ 302	Material Containment Required
§ 304	Limitation – Hydrogen Sulfide
§ 306.1	Steam Plants Using Low Sulfur Oil – After May 30, 1972
§ 308	Limitation – Nitrogen Oxides from Electrical Power Plants

<b>Rule 331</b>	<b>Solvent Cleaning (4/7/99 revision)</b>
§ 301	Solvent Handling Requirements
§ 302	Equipment Requirements for All Cleaning Machines
§ 306	Non-Vapor In-line Cleaning
§ 307	Special Non-Vapor Cleaning Situations
§ 501	Recordkeeping and Reporting

<b>Rule 335</b>	<b>Architectural Coatings (7/13/88 revision)</b>
§ 301	Prohibition – Bituminous Pavement Sealers
§ 303	Final Limits – Non-Flat Architectural Coatings
§ 304	Limits – Flat Architectural Coatings
§ 305	Limits – Specialty Coating
§ 306	Exemptions – Specific Use Coatings
§ 307	Exemption – Small Containers

<b>Rule 335</b>	<b>Architectural Coatings (7/13/88 revision)</b>
§ 301	Prohibition – Bituminous Pavement Sealers
§ 303	Final Limits – Non-Flat Architectural Coatings
§ 304	Limits – Flat Architectural Coatings
§ 305	Limits – Specialty Coating
§ 306	Exemptions – Specific Use Coatings
§ 307	Exemption – Small Containers

<b>Rule 336</b>	<b>Surface Coating Operations (4/7/99 revision)</b>
§ 301	Surface Coatings
§ 302	Application Methods for Surface Coatings
§ 303	Cleanup of Application Equipment
§ 304	Handling and Disposal of VOC
§ 305	Exemptions
§ 501	Recordkeeping and Reporting

<b>Rule 340</b>	<b>Cutback and Emulsified Asphalt (9/21/92 revision)</b>
§ 301	Limitations
§ 301	Exemptions
§ 501	Recordkeeping and Reporting

<b>Rule 353</b>	<b>Gasoline in Stationary Dispensing Tanks (06/16/99 revision)</b>
§ 301	Standards – Vapor Loss Control Measures Required
§ 302	Fill Pipe Requirements
§ 303	Vapor Recovery System
§ 304	Equipment Maintenance and Use Required
§ 305	Exemptions
§ 502	Recordkeeping

<b>Rule 360</b>	<b>New Source Performance Standards (3/1/00 revision)</b>
§ 301	Adopted Federal Standards
§ 301	Subpart A – General Provisions
§ 301	Subpart Db – Standards of Performance for Electric Utility Steam Generating Units for Which Construction Commenced After September 18, 1978
§ 301	Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
§ 301	Subpart GG – Standard of Performance for Stationary Gas Turbines

<b>Rule 371</b>	<b>Acid Rain (3/1/00 revision)</b>
§ 301	Incorporated Subparts of the Federal Acid Rain Regulations

## **Regulation VI          Emergency Episodes**

<b>Rule 600</b>	<b>Emergency Episodes (7/13/88 revision)</b>
§ 302	Control Actions

## **Appendices**

<b>Appendix C</b>	<b>(2/16/00 revision)</b>
Section 2	Test Methods for Stabilization
Section 3	Visual Determination of Opacity of Emissions from Sources for the Time-Averaged Regulations

**State Requirements**  
**Arizona Administrative Code**  
 (Applicable in Maricopa County; ARS § 49-106)

R18-2-703.C.1 (R9-3-503.C.1) (Steam Generating Units over 73 MW)	For steam generating units having a heat input rate of 4200 million BTU per hour or less, the maximum allowable particulate emissions rate in pounds-mass per hour $E = 1.02Q^{0.769}$ where: Q = heat input in million BTU per hour.
---------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Applies only to Existing Unit K-2. Duct Burner K-7 is a New Source Performance Standard (NSPS) Unit and not subject to this AAC regulation (per the definition of “existing source”, R18-2-101.38).

R18-2-719.C.1 (R9-3-519.C.1) (Rotating Machinery)	For stationary rotating machinery having a heat input rate of 4200 million BTU per hour or less, the maximum allowable particulate emissions rate in pounds-mass per hour $E = 1.02Q^{0.769}$ where: Q = heat input in million BTU per hour.
---------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Applies only to the Diesel Fire Pump Engines, Existing Units K-4, K-5, and K-6. Gas Turbine K-7 is a New Source Performance Standard (NSPS) Unit and not subject to this AAC regulation (per the definition of “existing source”, R18-2-101.38).

R18-2-724.C.1 (R9-3-524.C.1) (Steam Generating Units less than 73 MW)	For steam generating units having a heat input rate of 4200 million BTU per hour or less, the maximum allowable particulate emissions rate in pounds-mass per hour $E = 1.02Q^{0.769}$ where: Q = heat input in million BTU per hour.
-----------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Applies only to Existing Unit K-1.

## Federal Requirements

### **New Source Performance Standards General Provisions (40 CFR Part 60 Subpart A)**

§ 60.4(a), (b), (D)	Address
§ 60.7(a), (b), (c), (d), (f)	Notification and Recordkeeping
§ 60.8	Performance Tests
§ 60.12	Circumvention
§ 60.13	Monitoring
§ 60.19	General Notification and Reporting Requirements

### **New Source Performance Standards – Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units (40 CFR Part 60 Subpart Db)**

§ 60.44b(l)(1)	Standard for Nitrogen Oxides
§ 60.©(c), (f)	Compliance and Performance Test Methods and Procedures for Particulate Matter and Nitrogen Oxides
§ 60.48b(a), (b), (c), (d), (e), (f)	Emission Monitoring for Particulate Matter and Nitrogen Oxides
§ 60.49b(a), (b), (d), (g), (h)(2), (i)	Reporting and Recordkeeping Requirements

### **New Source Performance Standards – Standards of Performance for Stationary Gas Turbines (40 CFR Part 60 Subpart GG)**

§ 60.332(a) and (b)	Standard for Nitrogen Oxides
§ 60.333	Standard for Sulfur Dioxide
§ 60.334(b)	Monitoring of Operations
§ 60.335	Test Methods and Procedures

### **NESHAP Program (40 CFR Part 61)**

<b>Subpart M National Emission Standard for Asbestos</b>	
§ 61.145(a)(2)	Standard for demolition and renovation
§ 61.145(b)(1), (2), (3)(i) and (3)(iv), (4)(i) through (vii) and (4)(ix) and (4)(xvi)	Notification requirements when demolishment involves less than 80 linear meters on pipes and less than 15 square meters on other services and less than one cubic meter off facility components of regulated asbestos containing material (RACM) where the length or area could not be measured previously or there is no asbestos.

### **Accidental Release Program (40 CFR Part 68)**

§ 112(r)(1)	General duty to identify, prevent and minimize the consequences of accidental releases of listed and other extremely hazardous substances.
Part 68	Chemical Accident Prevention Provisions

### **Permits Regulation (40 CFR Part 72)**

<b>Subpart A provisions</b>	<b>Acid Rain Program General Provisions</b>
72.9(a), (b), (c), (d), (f), (g)4	Standard Requirements
<b>Subpart B</b>	<b>Designated Representative</b>
72.20	Authorizations and Responsibilities of the Designated Representative
72.21	Submissions
72.22	Alternate Designated Representative
72.23	Changing the Designated Representative
<b>Subpart C</b>	<b>Acid Rain Permit Applications</b>
72.30(a), (b)(2)(ii), (d)	Requirements to Apply
<b>Subpart D</b>	<b>Acid Rain Compliance Plan and Compliance Options</b>
72.40(a)(1)	General, Compliance Plan with sulfur dioxide emissions
<b>Subpart I</b>	<b>Compliance Certification</b>
72.90	Annual Compliance Certification Report
72.95	Allowance Deduction Formula
<b>Appendix A</b>	<b>Methodology for Annualization of Emissions Limits</b>
<b>Appendix B</b>	<b>Methodology for Conversion of Emissions Limits</b>
<b>Appendix D</b>	<b>Calculation of Potential Electric Output Capacity</b>

### **Sulfur Dioxide Allowance System (40 CFR Part 73)**

<b>Subpart B</b>	<b>Allowance Allocations</b>
73.33(a), (c)	Authorized Account Representative
<b>Subpart D</b>	<b>Allowance Transfer</b>
73.50(b)	Scope and Submission of Transfers

### **Continuous Emission Monitoring (40 CFR Part 75)**

<b>Subpart A</b>	<b>General</b>
75.4(b)(2),(c)(2),(i)(2)	Compliance Dates
<b>Subpart B</b>	<b>Monitoring Provisions</b>
75.10	General Operating Requirements
75.11(d)(2)	Specific Provisions for Monitoring SO <sub>2</sub> Emissions
75.12(a),(b),(c)	Specific Provisions for Monitoring NO <sub>x</sub> Emissions
75.13(b)	Specific Provisions for Monitoring CO <sub>2</sub> Emissions
75.16(b),(e)	Special Provisions for Monitoring Emissions from Common, Bypass, and Multiple Stacks for SO <sub>2</sub> Emissions and Heat Input Determinations
<b>Subpart C</b>	<b>Operation and Maintenance Requirements</b>
75.20	Certification and Recertification Procedures
75.21	Quality Assurance and Quality Control Requirements
75.22	Reference Test Methods
75.24	Out-of-Control Periods and Adjustments for System Bias
<b>Subpart D</b>	<b>Missing Data Substitution Procedures</b>
75.30	General Provisions
75.31	Initial Missing Data Procedures

75.32	Determination of Monitor Data Availability for Standard missing Data Procedures
75.33	Standard Missing Data Procedures for SO <sub>2</sub> , NO <sub>x</sub> , and Flow Rate
75.34	Units with Add-on Emission Controls
75.35	Missing Data Procedures for CO <sub>2</sub> Data
75.36	Missing Data Procedures for Heat Input Determinations
<b>Subpart E</b>	<b>Alternative Monitoring Systems</b>
75.40	General Demonstration Requirements
75.41	Precision Criteria
75.42	Reliability Criteria
75.43	Accessibility Criteria
75.44	Timeliness Criteria
75.45	Daily Quality Assurance Criteria
75.46	Missing Data Substitution Criteria
75.47	Criteria for a Class of Affected Units
75.48	Petition for an Alternate Monitoring System
<b>Subpart F</b>	<b>Recordkeeping Requirements</b>
75.53(a), (b), (f)(1), (f)(4), (f)(6)	Monitoring Plan
75.57	General Recordkeeping Provisions
75.58(b), (c)	General Recordkeeping Provisions for Specific Situations
75.59	Certification, Quality Assurance, and Quality Control Record Provisions
<b>Subpart G</b>	<b>Reporting Requirements</b>
75.60	General Provisions
75.61	Notifications
75.62	Monitoring Plan Submittals
75.63	Initial Certification or Recertification Application Submittals
75.64	Quarterly Reports
<b>Subpart H</b>	<b>NO<sub>x</sub> Mass Emissions Provisions</b>
<b>Appendix A</b>	<b>Specifications and Test Procedures</b>
<b>Appendix B</b>	<b>Quality Assurance and Quality Control Procedures</b>
<b>Appendix F</b>	<b>Conversion Procedures</b>
<b>Appendix D</b>	<b>Optional SO<sub>2</sub> Emissions Data Protocol for Gas-Fired and Oil-Fired Units</b>
<b>Appendix G</b>	<b>Determination of CO<sub>2</sub> Procedures</b>

**Protection of Stratospheric Ozone (40 CFR Part 82)**

<b>Subpart F</b>	<b>Recycling and Emissions Reduction</b>
§ 82.161	Technician Certification
§ 82.166	Reporting and Recordkeeping
<b>Subpart G</b>	<b>Significant New Alternatives Policy Program</b>
§ 82.174(b)	Prohibition against use of substitute
§ 82.174(c)	Prohibition against use of substitute without adhering to use restrictions
§ 82.174(d)	Prohibition against use of substitute after added to list of unacceptable substitutes



**Federal Requirements  
 Maricopa County State Implementation Plan (as of 12/31/99)**

**Regulation I                      General Provisions**

<b>Rule 3            Air Pollution Prohibited</b>
---------------------------------------------------

**Regulation II                      Permits**

<b>Rule 22 – Permit Denial – Action – Transfer – Posting – Revocation – Compliance</b>
§F – Permit Posting
<b>Rule 27 - Performance Tests</b>

**Regulation III                      Control of Air Contaminants**

<b>Rule 30 - Visible Emissions</b>
<b>Rule 31 - Emissions of Particulate Matter</b>
§§ A.1,2,3,4,6,7, - Non-Point Sources of Particulate Matter.
§ H.1.a - Fuel Burning
<b>Rule 32 - Odors and Gaseous Emissions</b>
§§ A, C, E, F
<b>Rule 33 – Storage and Handling of Petroleum Products</b>
§ 33.3 Loading Into Stationary Storage Containers
<b>Rule 34 – Organic Solvents – Volatile Organic Compounds</b>
§ C.1 – Metal cleaning operations
§ C.2(a) – Cold Organic Solvent Cleaning
§ E.1 & E.2 – Spray Paint and Other Surface Coating Operations
§ G – Limits on VOC Discharge from Individual Equipment
§ K – Limits on Photochemically Reactive Solvent
§ L – Cutback Asphalt
<b>Rule 34 – Organic Solvents – Volatile Organic Compounds</b>
§ C.1 – Metal cleaning operations
§ K – Limits on Photochemically Reactive Solvent
<b>Rule 335 – Architectural Coatings</b>
<b>Rule 336 – Surface Coating Operations</b>
<b>Rule 353 – Surface Coating Operations</b>
<b>Rule 340 – Cutback and Emulsified Asphalt</b>
§§ 301, 501

**Rule IV                      Production of Records: Monitoring, Testing and Sampling Facilities**

<b>Rule 40                      Recordkeeping and Reporting</b>
<b>Rule 41 § A            Monitoring</b>

<b>Rule 42</b>	<b>Testing and Sampling</b>
<b>Rule 43</b>	<b>Right of Inspection</b>

**Regulation VII      Ambient Air Quality Standards**

<b>Rule 72</b>	<b>Emergency Episode Criteria</b>
§72e	Air Pollution Alert Actions
§72f	Air Pollution Warning Actions
§72g	Air Pollution Emergency Actions

***APPENDIX C***

***PERMIT SHIELD NON-APPLICABLE REQUIREMENTS***

***Kyrene Generating Station  
Salt River Project***

## **APPENDIX C: NON-APPLICABLE REQUIREMENTS**

Identified below are *some* of the federal, state and local air pollution control requirements that do not apply to the Permittee at the time the Permit is issued because the operations subject to these rules will not occur at the Kyrene Generating Station. The list is not all inclusive and there may be additional requirements that do not apply but are not listed in this Appendix C of this Permit.

### **Federal Rules Not Applicable to the Kyrene Generating Station**

<b>CAA Section 112(g)</b>	<b>Case by Case MACT</b>
<b>40 CFR Part 63</b>	<b>NESHAPs for Major Sources of HAPs</b>
<b>40 CFR 60 Subpart D</b>	<b>Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971</b>
<b>40 CFR 60 Subparts K</b>	<b>Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978</b>
<b>40 CFR 60 Subparts Ka</b>	<b>Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984</b>
<b>40 CFR 60 Subparts Kb</b>	<b>Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984</b>
<b>40 CFR 64</b>	<b>Compliance Assurance Monitoring</b>
<b>40 CFR 75.17</b>	<b>Affected Units Exhausting through a Common Stack</b>

### **County and Federally Enforceable SIP Rules Not Applicable to the Kyrene Generating Station**

<b>Rule 310, Sections 302.1, 302.4, 308.1, 308.2, 308.3, 308.6, 308.7</b>	<b>Certain material handling and other dust generating activities that will not occur at the Kyrene Generating Station on a routine basis</b>
---------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------

**END OF PERMIT**